

Lamb Cost of Production Baseline Model – Kentucky and U.S. Comparisons

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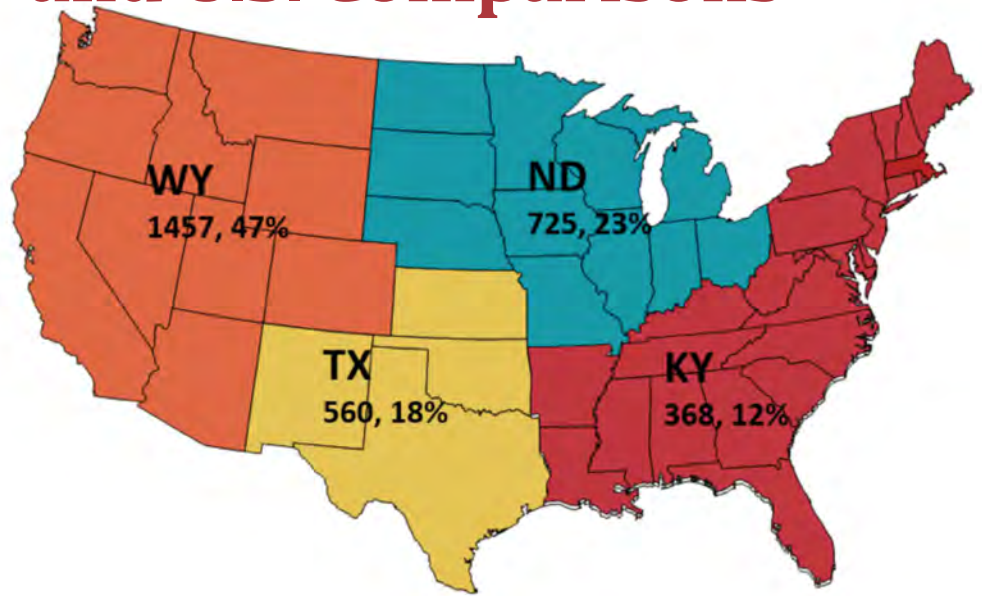
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When it comes to lamb profit, there are two major factors – cost of production and market prices. Depending on the situation, markets may be under your control – but probably are not. Producers who sell directly to consumers may be removed from overall markets. But, most producers find that national trends in supply and demand actually determine their prices – they have very little market control. The part of the enterprise that is under their control is production cost.

Every lamb producer knows that understanding cost of production is a key factor in making the good decisions which determine profitability. Almost every production decision affects production cost. Using a feed supplement adds cost, but also adds pounds of lamb sold. Good feed management for ewes results in more and healthier, and sometimes bigger lambs. Maintaining and improving forage quality has a cost, but pays off in productivity. Every decision has a cost and a payoff. Good managers weigh these carefully.

When we step back and look at the lamb industry nationally, we see that the different ecological zones, resources, weather, labor and even culture create different production systems. We know that our plentiful rainfall in Kentucky is going to give us more productive pastures than operations in the arid Southwest. We also know that we're going to have more parasite problems. With a scattering of relatively small operations around Kentucky, it's difficult for shearers to find enough business and for us to have enough wool to meet market needs – another regional difference

These differences are critical to understanding the U.S. sheep industry. In spite of the variation, sheep production is economically viable in many parts of the country. But we also know that it's not



always profitable. Profitability changes depending on weather, market conditions, and other factors. In order to understand that variation, the American Sheep Industry Association retained the Livestock Marketing Association (LMIC) to develop baseline cost of production estimates for producing lambs. The results of this project are useful in educational programs, policy analysis, and applied research for the U.S. lamb industry. The project has made input and output data easy to depict graphically and for trends to be summarized.

Here's how the project worked. The LMIC took the lead. (The LMIC is a dues supported organization which supports its 28 state extension services and associate members by providing timely and comprehensive livestock marketing resources through cooperation. www.lmic.info) Specialists in four of its member states - Kentucky, North Dakota, Texas and Wyoming, developed detailed budgets for their own states. These were used to represent each of their four regions. The U.S. map shows the four regions and the number in thousands and percent of the national ewe flock. The LMIC staff added market analysis and analytical expertise. The project produced: 1) a brief summary of available university-based cost of production budgets for lamb; 2) final spreadsheets; 3) brief summary report describing the spreadsheets and the cost considerations; and 4) an analysis of

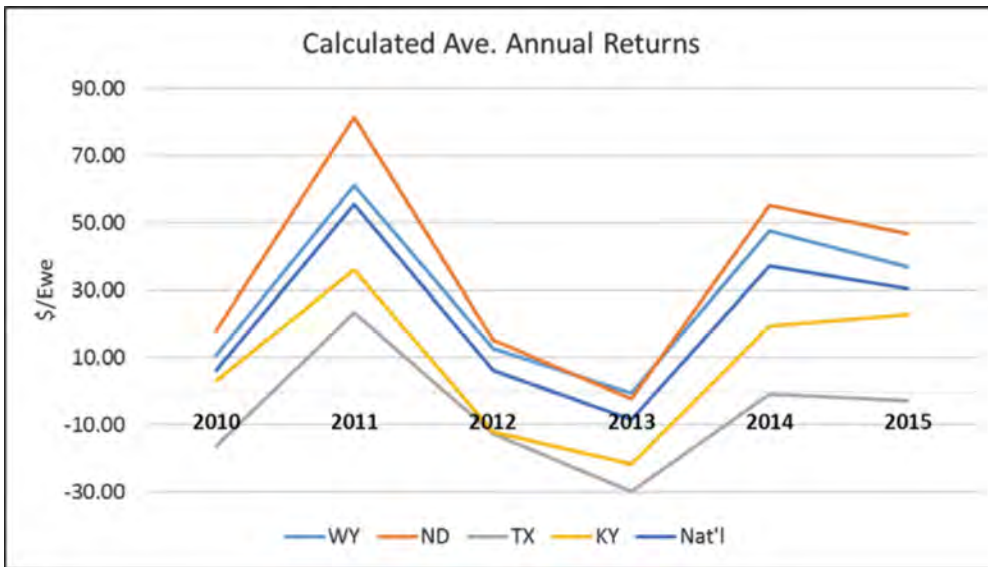
variability and regional differences.

Lamb producers will probably find three parts of the project most interesting – the budgets, the changes over the six years of data, and the analysis of regional differences.

The budgets can be found and downloaded from: <http://lmic.info/page/cost-sheep-production-budget-sponsored-american-sheep-industry>. The Excel spreadsheet has tabs for the each of the four states. Even novices will find it easy to read and use the spreadsheet. Some differences will stand out. For example, there is a line for “federal range.” That cost is obviously \$0 for our region, but is about \$2.50 per ewe for Wyoming. Readers may wonder, why is “camp supplies” in the budget? The answer – in Wyoming, shepherds travel the range and camp with the flock.

A look at the Kentucky budget shows that our biggest cost is “feed grain” (supplement), accounting for 25% of our variable cost. It accounts for 35% of the cost in Texas, almost none in Wyoming and only 15% nationally. We can use the feed grain example to show the value of the budget analysis. If feed grain prices rise dramatically, like they did in the early 2000s, Texas lamb producers will be most impacted, Wyoming producers will hardly feel the impact, and we'll be in the middle.

In Kentucky, 94% of our cost is for items that vary with the level of production, “variable costs.” Nationally the figure is 87%.



In other words, only 6% of the typical total costs in Kentucky are fixed. In Wyoming, about 19% percent of production cost is in the “fixed” category – housing, equipment, taxes and insurance, etc. Nationally, 13% of total costs are fixed.

The spreadsheet also helps us look at the situation from a whole industry position. Here’s an example. Data from the spreadsheet are shown in the Annual Returns graph Over the six year study period (2010 to 2015), calculated average

net returns per ewe, according to the model, ranged from a high of about \$80 in North Dakota in 2011 to a low of -\$30 in Texas in 2013. Kentucky has ranked second last in return, with only Texas have lower profitability.

As mentioned before, the spreadsheet can be downloaded from the WWW.LMIC.INFO website under the “publications” tab. The American Sheep Industry Association invested in the analysis and encourages sheep producers and others in the sheep

industry to use this tool. Individual producers can compare their costs and returns with others throughout the U.S and identify opportunities to improve their management.

Dr. Kenneth Andries was raised on a livestock and crop farm in Louisiana. He did his graduate work at Louisiana and Kansas State Universities majoring in Animal genetics. Dr. Andries has worked in extension since graduation from Kansas State University in 1996. He is currently the Animal Science Specialist and Assistant Professor at Kentucky State University where he is responsible small ruminant extension programming, goat production research, and teaching undergraduate classes.

Dr. Lee Meyer is an extension professor of agricultural economics in the UK College of Ag, Food and Environment. Some of his areas of work include: livestock marketing and management, local foods, sustainable agriculture and beginning farmer training programs.

Jim Robb is the Director of the Livestock Marketing Information Center (LMIC). Jim has written over 1,200 research reports, articles, and newsletters on a variety of livestock marketing and economic topics. He is a regular speaker at conferences throughout North America and has given expert testimony to the U.S. Senate Agriculture Committee.






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