

Animal Well-Being



How to Use and Review Results of the Sow-Housing Conversion Model

The Sow-Housing Conversion Model is an Excel-based analysis tool that can be used to compare sow-farm financial results between an existing farm and a converted farm. The model consists of seven worksheets (tabs) located at the bottom of the tool's page within the program. Descriptions of each of the tabs and instructions for how to use them follows below.

Data Entry

Entry Worksheet (Red Tab)

This is the only worksheet where information can be entered. This is set up in a format with instructions for each entry. The entries are split between production and financial information. Actual production results and financial information should be entered for the existing sow farm first in the yellow cells. This is followed with the expected production results and financial information to be entered for the converted sow farm in the green cells.

Some specific aspects to consider for converted sow farm data entry:

Production information – Consider any changes that will be made to the size of the sow herd, space allowance provided per sow, diets, and production flow. More information on each of these factors can be found in the Sow Housing fact sheet series at www.pork.org/sowhousing.

Comparable prices – When entering feed costs, replacement gilt costs, cull sow values, weaned-pig values and other costs and revenues influenced by commodity prices, it is important to be consistent between the existing sow farm and the converted sow farm so that they are compared under similar economic conditions.

Gilt-development costs – For replacement females, some producers internally multiply replacement gilts, some purchase weaned pigs and grow them out in separate gilt development facilities, while others purchase mature gilts. For purposes of this analysis, the cost of gilts is set up to be entered as a fully mature gilt (to include all costs accumulated to that point).

Weaned-pig values – There are a variety of factors that could cause the weaned-pig values to be different between the existing and converted sow farm. One factor could be weaned-pig ages as they may change as a result of the conversion, and thus weaned-pig weights and values could be different. If weaned-pig weights are expected to be different, please keep in mind that the pounds of lactation feed required per sow also may change. In addition, take into account any market or premium differences that may result from the sow-farm conversion.

Down-time costs – Costs resulting from suspended or reduced weaned-pig production during the remodeling time should be calculated and included in the additional investment for conversion and also in either the operating loan balance or a long-term loan balance for the converted operations (depending on how these costs are financed). The calculation of the down-time costs should include the cost of reduced production, additional interest expenses and any rented facilities.

Investment Required for a Sow-Barn Conversion – In the entry worksheet, the additional investment required for a sow-housing conversion is entered as one lump-sum amount. This additional investment should include labor, building materials and equipment needed for the conversion along with any down-time costs. This will likely be based on construction bids. Any interest from a construction loan or increased operating funds involved in financing the conversion should also be included in the additional investment amount.

Loan Structure-Existing (1st Yellow Tab)

This spreadsheet shows the loans, loan terms, monthly payments and amortizations for one year based on the existing sow farm data entered on the entry worksheet. This can be used to cross check the loan terms entered.

Loan Structure-Converted (1st Green Tab)

This spreadsheet shows the loans, loan terms, monthly payments and amortizations for one year based on the converted sow farm data entered on the entry worksheet. This can be used to cross check the loan terms entered.

How to Review Your Results

This model was created to take into account as many factors as possible, but may not cover all differences between an existing sow farm and a converted farm. Again, these results are based on the data entered and how you interpret how that data will impact financial results.

Sow Cash Flow-Existing (2nd Yellow Tab)

These are the financial results from the existing sow farm shown on an annual, monthly and per weaned pig basis. The first three rows of information reflect key production information – head of pigs weaned, cull sows sold and gilts delivered. The financial results are split out to analyze net breeding stock costs (cull sow sales less replacement gilt expenses), expenses that can be controlled (influenced) at the farm level, fixed expenses such as insurance and taxes, overhead (general & administrative expenses) and other income/expenses not tied directly to farm operations. The net income before taxes takes both the weaned-pig value and all expenses into account. Following net income, non-cash expenses (such as depreciation) are added back and other cash costs (such as principal payments) are deducted to arrive at cash flow before taxes. The last row of the worksheet shows the cash flow costs per pig (which does not take weaned pig values into account).

Sow Cash Flow-Converted (2nd Green Tab)

These are the financial results from the converted sow farm shown on the same basis as the existing sow cash flow described above.

Sow Cash Flow-Compared (1st Blue Tab)

This worksheet pulls data from the sow cash flow-existing worksheet and the sow cash flow-converted and compares the results on an annual basis. Variances are shown in the far right column. This worksheet can also be utilized to check for errors in the entry worksheet – in case any unusual variances show up. *The sow cash flow-compared worksheet is intended to highlight the differences in financial expectations between the existing sow farm and converted sow farm.*

Sow Cash Flow Per Pig-Compared (2nd Blue Tab)

This is the last spreadsheet and shows the all of the compared results between the existing sow farm and converted sow farm on a per pig basis. The variance per pig is also shown in the far right column, which can be helpful in flagging entry errors.



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