

## **Wisconsin Dairy Feed Evaluator**

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#### **-Instructions of Use-**

The Wisconsin Dairy Feed Evaluator is a database application for benchmarking feed costs and income over feed costs among participating herds. The object is to monitor these indices for decision-making. The application is an Excel® spreadsheet that contain macros (macros need to be enabled in the user machine).

The Wisconsin Dairy Feed Evaluator is divided in logical steps, which are numerated and labeled. The user should start in #1 and finish in #8. In each section there are subsections also denoted with correlative numbers. Yellow cells are editable and blue cells are protected calculations. Buttons with self explanatory labels help in the navigation and management of the application.

The first step (#1) is to enter the farm name, the name of the person reporting and the parameters referred to milk production and price: bulk tank milk production, milk butterfat and milk price. The application will automatically enter the date and calculate the milk revenue. The number of dry and milking cows will also be calculated by the application in this section, but after other sections are filled.

Before going to step #2, it is optional to fill the sheet with name "Ingredients." In this sheet, the user can define forage, energy, protein and supplement ingredients and their prices that could be later used for specific cow group rations. Drop box menus in rations sheets are connected with this pre-defined ingredients and prices, so the user would not need to repeat the ingredients and prices if these are used in more than one ration. Not all individual ingredients need to be entered if they can be handled as a mix of ingredients to simplify the data entry.

Steps #2 to #7 define the rations for up to 5 different cow groups (sheets Ration1 to Ration5). In step #2 the user gives a name and define the number of cows in such a group of cows and by checking a box denotes if these cows are milking or not.

Steps #3 to #6 allow the user to define the sources, amounts, prices, and %DM of up to 9 ingredients for each main group of feed: forages, energy supplements, protein supplements & byproducts, and min-vit. & additive supplements. For each category of feed, the user has the option of selecting (by using the drop box menus) up to 4 pre-defined sources (in the "Ingredients" sheet), which will also come with their pre-defined prices. For each ingredient, a checkbox is used to define if the

ingredient is purchased (checked) or if it is home grown (unchecked).

The user needs to fill the amounts and %DM for each one of them. Also, in each category of feeds there are 5 slots for the user to define ingredients along with their amounts, prices and %DM. The application will perform calculations interactively as the data is being entered. In each ingredient section, the application will calculate the DMI and the individual cost of ingredients. At the end of each category of ingredients, there will also be calculations of total DMI and cost of ingredients distinguishing between purchased and home grown ingredients.

At the end of each of the Rations sheets, in section #7, there is a summary for the group of cows defined in the ration. This summary includes the DMI and costs of purchased and home grown ingredients by feed category as well as the overall DMI and feed cost of the particular group of cows.

The same information as section #7 in each ration sheet is repeated in the Summary sheet (section #8). The Summary sheet contains in addition an overall herd summary in sections #8.6 to #8.11. In these sections, the application calculates benchmark indexes that include for milking cows:

8.6.1 DMI

8.7.1 Milk/DMI

8.8.1 FCM/DMI

8.9.1 Purchased feed cows

8.10.1 Home grown feed cost

8.11.1 Total feed costs

8.12.1 Income over purchased feed costs

8.13.1 Income over feed costs

and for dry cows:

8.6.2 DMI

8.9.2 Purchased feed cost

8.10.2 Home grown feed cost

8.11.2 Total feed costs

Once these indices are calculated, the user is ready to push the button labeled "Archive Results," which will create a new sheet with unique name and exact date and time. These archived results will be used to analyze (benchmark) spatially and temporally feed costs and income over feed costs.