Table of Contents
FeedForm menu..................................................................................................... 1
Ingredients............................................................................................................. 1
Animal feed components ....................................................................................... 2
Formulation ........................................................................................................... 2
Feed – Formulation of a complete feed ................................................................. 3
  • Enter a diet name, date, and the name of the person who formulated the diet: .......... 3
  • Note that the animal type selected in the Animal Feed Components table is displayed: 3
  • Note that all the suggested components are shown with the concentrations in the DM
    of the feed, the suggested levels, and the difference between feed and suggested levels: ... 4
  • The "Balancer" column specifies which ingredient will be subtracted when another
    ingredient is added: ........................................................................................................... 4
  • Concentrations of ingredients can be entered manually in either the "% of DM" column: 5
  • Or the concentration can be entered in the % As-fed column:................................. 5
  • Or the concentration of an ingredient can be determined for a particular feed
    component. To do this, first click the check box above the component: ....................... 6
  • Then, click the "Substitute" check box for the ingredient that will be used to increase
    the concentration of the selected component: .............................................................. 6
  • Ingredient costs can also be edited in this window, but all other changes to the
    ingredients table must be edited from the ingredients pane in the main window. ... ... 7
  • The new diet can be added to the list of feed ingredients as a new ingredient: ........... 7
Formulation of a premix ........................................................................................ 8
  • The premix is formulated assuming that it will make up a given concentration of the
    feed dry matter, which the user can specify: ................................................................. 8
  • The concentrations of levels of feed components in the premix are indicated: .......... 8
Formulation of a supplement ................................................................................. 9
Ingredient reports .................................................................................................. 9
Animal feed component reports ............................................................................ 9
FeedForm Documentation

FeedForm is a Microsoft Access database programmed to balance diets for ruminant animals using the substitution method. It consists of 1) a table of feed ingredients; 2) a table of suggested feed component levels for various classes of animals; 3) methods to formulate complete feeds, premixes, and supplements; and 4) reports.

FeedForm menu

The ingredients menu is used to change the contents of the feed ingredients table. Note the "Premix" and "Include" fields for each ingredient. Click the "Include" field to include the ingredient as a possible choice for diet formulation. Click the "Premix" field if the ingredient is to be used in premix formulation only.

- Table: Click to view and edit the entire table.
- Edit: Click to select and edit an individual ingredient.
- Add: Click to add a new ingredient.
- Duplicate or Delete: Click to duplicate an ingredient (useful to create a new ingredient) or to delete an ingredient. Note that this window closes immediately after duplicating or deleting an ingredient.
Animal feed components

The feed components table contains suggested levels of feed components for various classes of ruminant animals. Traditionally, these have been called "nutrient requirements," but some of the feed components are not really nutrients. The levels are "suggested" because these levels may not always be appropriate.

The "Select" field is used to specify for which animal the diet will be balanced.

The feed components menu is used to change the contents of the feed components table.

- **Table**: Click to view and edit the entire table.
- **Edit**: Click to select and edit an individual animal.
- **Add**: Click to add a new animal.
- **Duplicate or Delete**: Click to duplicate an animal (useful to create a record for an animal not currently in the table) or to delete suggestions for an animal. Note that this window closes immediately after duplicating or deleting a record.

Formulation

Formulation is done with the tools in this menu

- **Feed**: Click to open a window to formulate a complete feed.
- **Premix**: Click to open a window to formulate a premix.
- **Supplement**: Click to open a window to formulate a supplement.

Click on Formula or Mix for reports for the Feed, Premix, or Supplement.

Click the links to the left for details about how to use the formulation menus.
Feed – Formulation of a complete feed

- Enter a diet name, date, and the name of the person who formulated the diet:

- Note that the animal type selected in the Animal Feed Components table is displayed:
- Note that all the suggested components are shown with the concentrations in the DM of the feed, the suggested levels, and the difference between feed and suggested levels:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>% of DM</th>
<th>Balancer</th>
<th>Substitute</th>
<th>% As-fer</th>
<th>Cost/t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bypr - Dried distillers grains - DEH</td>
<td>95.2077</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>95.6652</td>
</tr>
<tr>
<td>Bypr - Molasses; sugarcane (add las)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>$280</td>
</tr>
<tr>
<td>Bypr - Soy hulls - 30 Jul 2010</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>$350</td>
</tr>
<tr>
<td>Bypr - Wheat midds - DEH</td>
<td>95.2077</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>95.6652</td>
</tr>
</tbody>
</table>

- The "Balancer" column specifies which ingredient will be subtracted when another ingredient is added:
• Concentrations of ingredients can be entered manually in either the “% of DM” column:

FeedForm Documentation

Feed Formulator
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019 Ewes: Early lactation (3 lambs)

Diet name: Lactating cow example
Formulation date: 9/17/2012
Formulator: Seminar

Estimated DM intake: 8.3 lb

Feed:
90.43 79.02 17.14 35.23 4.76 30.47 35.23 2.86 9.55 2.0
Suggested level:
75.00 16.00 10.00 36.00 34.00 5.00 5.00 1.0
Feed minus level:
4.03 1.14 -5.24 0.47 1.23 -2.14 4.55 0.0

Ingredient % of DM Balancer Substitute % As-fer Cost/t
Bypr - Dried distillers grains - DEH 95.2077 $310
Bypr - Molasses; sugarcane (add las) $280
Bypr - Soy hulls - 30 Jul 2010 $350
Bypr - Wheat midds - DEH 95.6662 $270

• Or the concentration can be entered in the % As-fed column:
• Or the concentration of an ingredient can be determined for a particular feed component. To do this, first click the check box above the component:

Note that after the diet is reasonably-well balanced, the "As-fed" concentrations can be rounded off to an appropriate number of decimal places.

• Then, click the "Substitute" check box for the ingredient that will be used to increase the concentration of the selected component:
- Ingredient costs can also be edited in this window, but all other changes to the ingredients table must be edited from the ingredients pane in the main window.

- The new diet can be added to the list of feed ingredients as a new ingredient:
Formulation of a premix
The Premix formulation window is very similar to the Feed formulation window. Only difference are documented here.

- The premix is formulated assuming that it will make up a given concentration of the feed dry matter, which the user can specify:

- The concentrations of levels of feed components in the premix are indicated:
**Formulation of a supplement**

When the Feed formulation window is closed, all non-balancer ingredients become ingredients for a supplement. The Supplement formulation window is very similar to the Feed formulation window. Only difference are documented here.

Note the "Add to ingredients list" at the top of the screen. When this button is clicked, a new feed ingredient will be added with the name indicated in the Supplement name window.

The initial supplement concentrations are those that were in the originally-formulated Feed, except that the "Balance" ingredient is not included. Click on the button to change to 100%:

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**Ingredient reports**

**Ingredient reports**

These reports document all of the data for each feed ingredient in the data base.

**Animal feed component reports**

**Animal feed component reports**

These reports document all of the suggested levels of feed components for each animal in the data base.