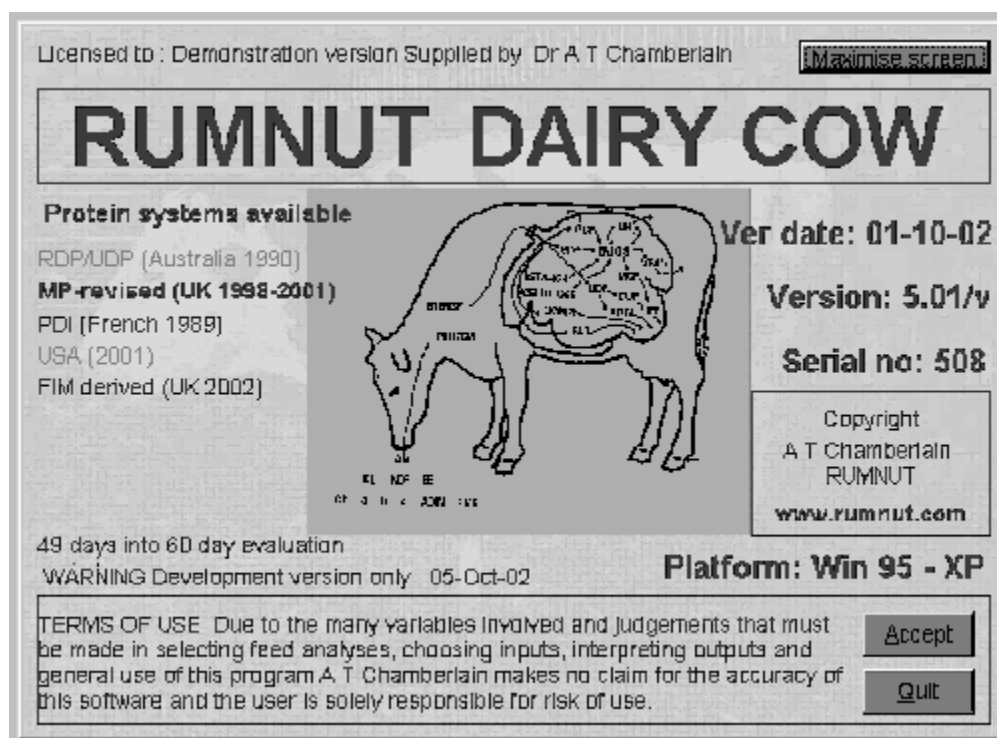


RUMNUT COMPUTER PROGRAM

Instructions - Getting started

A T Chamberlain - Spring 2006

- Load the Dairy module by clicking on the icon on the desk top.
- You must Accept the terms of use to proceed
- The program loads the feed analyses etc.
- Select to start a new ration
- Set the animal details - clicking on the down-arrow next to the ration title will show several ration titles that come with their own yields, milk quality etc. Alter milk quality and pricing using the appropriate buttons. Click accept to finish.
- In the 'Select Feeds' screen double-click any feed to add it to the ration. Click Forward and Backward to move through the feed database. To set the feed amount either click on the ad-lib round-button or enter the amount fed in the amount box or click on the up-arrow next to the amount which will increase the amount in steps appropriate to the type of feed.



- Click Finish to show the main ration screen.
- The main ration shows the basic ration and how it satisfies the principle nutrient requirements.
- The top-row menu can be used to save, retrieve and print rations, alter the animal details, change the feeds, view the various ration screens and get help.
- The row of icons below the menu let you save, retrieve and print rations and undo and re-do changes as appropriate.
- You can alter a feed amount by
 - Selecting the Feeds menu item then Alter feed amounts (or Ctrl+A) to go to the Select Feeds screen.
 - Use the up and down arrows next to each feed amount
 - Double click to zero a feed amount, then type in the new amount.
 - Right click over a feed name and select Alter feeds

MCC	add/lb	As Fed kg	DMI kg	ME MJ	NDF kg	PNE MJ	ERDP g	OUP g
<input type="checkbox"/>	Blage Good	42.8	11.5	126	8.04	97	1100	297
<input type="checkbox"/>	Mabe Silage	20.0	8.1	98	2.87	66	820	96
<input type="checkbox"/>	Wheat Grain	3.0	2.9	36	0.43	34	247	87
<input type="checkbox"/>	Pease Seed Meal	2.0	1.8	22	0.50	20	482	180
<input type="checkbox"/>	Soyabean Meal	1.0	0.9	12	0.20	10	228	182
Totals		68.8	22.9	292	9.80	218	2476	810
Requirements			22.8	292	7.88	21.7	2308	790
Balance			0.0	0	2.01	-1	168	184

Milk yield: 38.0 GO

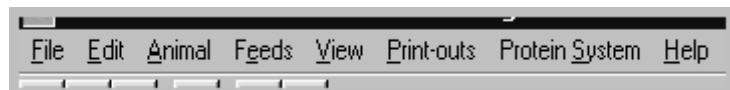
8 Blage Good is 20 lb
Animal protein status: MP supply: 2282g NP requirements: 2178g NP surplus: 104g Cost: 22.18/ton

10:25 Name Minerals Percent ADVCE RCP MP POI USA PMS BORE 2.0

Ration Window Structure

The central part of the window relates to the ration that has been specified whilst sections at the top and bottom of the window allow the user to inspect, control, modify and print the ration. The various parts will be dealt with in turn.

The menu bar



The menu bar allows you access to all parts of the program - see below.

The tool bar

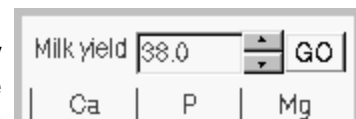


The tool bar has icons for six functions

- Open a new ration
- Retrieve a saved ration from disk.
- Save the current ration to disk either overwriting the current saved version or saving it as a new ration.
- Print out the ration (see below).
- Un-do the most recent changes. RUMNUT stores that last 50 changes to the ration and clicking on this icon moves back one alteration.
- Re-do the last 'un-do'. If you have reversed some of the changes you have made to the ration you can click on this icon reverse the correction.

The GO button

In the top right hand corner of the window is a button marked 'GO' and associated controls. These allow you to rapidly change the milk yield to assess the potential of the ration. The up and down arrows will alter the milk yield by one litre, double clicking on the milk yield will clear the entry box and a new value can be entered. Clicking 'GO' will redisplay the ration for the new milk yield or for any other changes.



The ration ingredient controls

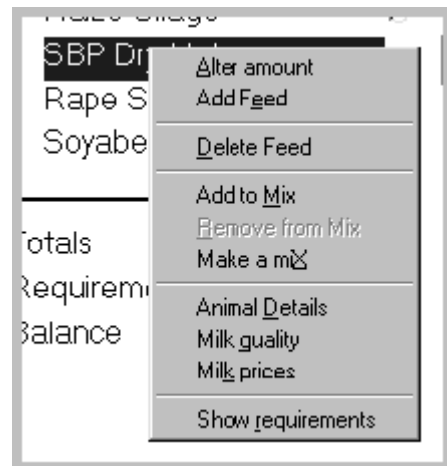
Clicking on the 'MIX' check box adds or removes the ingredient from the mix. Double clicking on the feed name has the same effect. Left-clicking on the feed name brings up the menu shown below. Feed amounts can be altered by several means

- Click on the up-down arrow alongside each feed amount.
- Click on the feed amount and enter the new amount. Double click to clear the existing feed amount. Note that simply entering the new amount does not trigger re-calculation (this would be too slow); click on another feed amount field or the GO button or press the 'Enter' key to initiate recalculation.
- Click on the ad lib button to set one feed ad-lib and the others to weighed amounts.
- Click on the Feeds item in the main menu then select to alter the feed amounts via the 'Select Feeds' window.

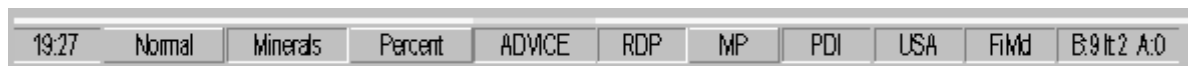
MIX	ad lib	As Fed kg
<input type="checkbox"/>	<input checked="" type="radio"/>	42.7
<input type="checkbox"/>	<input type="radio"/>	20.0
<input type="checkbox"/>	<input type="radio"/>	3.0
<input type="checkbox"/>	<input type="radio"/>	2.0
<input type="checkbox"/>	<input type="radio"/>	2.0

Within the menu brought up by left-clicking a feed (see on right) allows you to

- Alter a feed amount.
- Add a feed via the 'Select Feeds' window.
- Delete the highlighted feed.
- Add the highlighted feed to, or remove it from, the mix and make a mix.
- Alter the animal details, milk composition and prices.
- Show the animal requirements.



The status bar



The status bar at the bottom of the window contains up to 11 buttons most of which will respond to a mouse click. From left to right the properties of the status buttons are

- Shows the current time
- Toggles between a full screen display and a display that only covers part of the screen.
- Toggles the ration mineral display on and off
- Determines if the ration nutrient balances are shown in percentage terms or in actual units.
- ADVICE - links to the Ration Advisory System - a yellow bar over the button indicates that potential problems have been identified.
- The next set of buttons (up to five) indicate which protein systems are available (set up via the Protein Systems tab of the Preferences sub-option in the File menu option. Click on any button top change the protein system.
- This button indicates that there are 9 previous changes stored Before the displayed ration in the 'Un-do/Re-do' facility, it took 2 iterations to reach this ration solution and there are 0 changes stored Ahead of the displayed ration.

The menu items

File menu

- Start a new ration based on the default settings saved when defining the animal details.
- Retrieve a ration previously saved.
- Save the current ration to disk; overwriting the previous copy or saving as a new ration.
- Print out ration using a variety of print-outs (see below).
- Windows printer setup routines - select printer and paper size.
- Set user preferences for RUMNUT
- Backup (and retrieve) saved rations and user alterable files for secure keeping.
- Exit program.



Edit menu

If ration alterations have been made the Un-do facility can be used to move back to previous versions and then forward again.



Animal menu



- Alter animal details (as above)
- Alter milk quality (butter fat, protein, lactose, minerals) and calf birth weight
- Alter milking pricing and premia.
- Display current animal requirements based on ration being offered.

Feeds menu

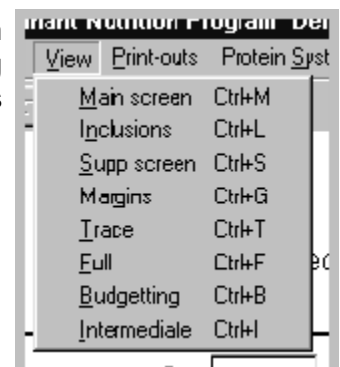
- Add or delete feeds via the 'Select Feeds' window
- Alter feed amounts - again via the 'Select Feeds' window
- Sort feeds into order specified in Preferences tabs.
- Use the make-a-mix routines to create a mix and save it to the feed database.



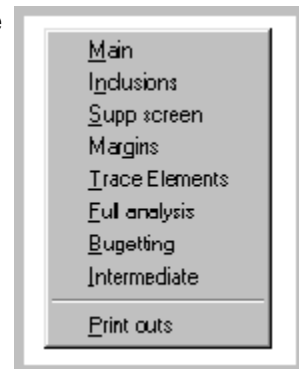
View menu

This menu can be brought up either by clicking the View option on the main menu at the top of the page or Left-clicking anywhere on the window except over the feed names (this brings up a feed menu).

- Main rationing window showing nutrient balances.
- Ingredient inclusion rates compared to user defined rates
- Assessment of supplementary analyses.
- Financial margins based on milk price and feed costs.



- Trace element assessment.
- Full analysis showing all nutrients.
- Budgeting window to assess amounts of feed needed over time for a group.
- Intermediate calculations used for the protein system being displayed.



Print-outs menu

Between 0 and 9 copies can be produced of any print-out. Advisory comments may be entered and these are printed at the bottom of each page of the print-out.

Command key options

- Print out selected pages.
- Cancel the print outs.
- Choose how multiple copies are collated.
- Access the Windows set-up.
- Save the numbers of each page and the print order as the defaults for future use.

Protein system menu



This menu option can be used to select the required protein system. Rations are then re-calculated according to that system. Such changes can also be made using the Function keys (F2-F6) and via the status bar - see above. Protein system names that are greyed-out are not available as defined in the Protein System Tab of the Preferences sub-option on the File option in the main menu.

Help menu



Selecting ration advice (F1) transfers you to the Ration advisory system which outlines potential problems with the ration (see below). The degree of sensitivity (ie the importance of the problems shown) can be controlled via the Ration Advice window or via the Display options Tab of the Preferences sub-option on the File option in the main menu.