Innovation in and out of parlour

ATL Cowculator M5

ATL Cowculator M5 is a user friendly and flexible dairy animal management program designed to help you improve your milking performance.

It provides complete animal milking and feeding records, helping you to make the best management decisions. Historical data is available for individual animals allowing you to monitor lifetime lactation performance.

The program can be used with cows, sheep and goats.

Animal Information

About the Animal Information Screen

The animal information screen shows a list of all the animal records stored in the program. The default view shows the animal number, status, group, birth date, national animal number and electronic identification number.

The view can be changed to show only heat detection, pregnancy diagnosis, calving, young stock, barren stock or deceased stock. NB - If animal type is sheep or goat, calving is replaced by lambing or kidding respectively. Heat detection is also removed from the list

Groups - Each animal is assigned to a group of animals that are similar (i.e. young stock, low yielders, high yielders etc). There are 25 groups available and they can contain as many animals as the user requires. The name of each group can be changed by the user and each group can be configured to link to any one of the ration calculations available from the rations calculation menu.

Animal Status - Each animal is also assigned a status to describe its position in its lactation cycle and life cycle. The program then uses changes to the status to initiate other changes. The status's available are: Young Stock, Barren, In Heat, Served, Pregnant, Aborted, Calved, Drying Off, Dry, Unknown and Deceased.

When the animal's status is set to calved, the user has the ability to decide which milking and feeding totals are reset, whether to begin a new lactation curve or set the calving date.

Animal Type - The type of animal can be selected from the setup menu - the options are cow, sheep or goat. The wording within the software is altered according to the type of animal.

Cow Calendar

ATL Cowculator M5
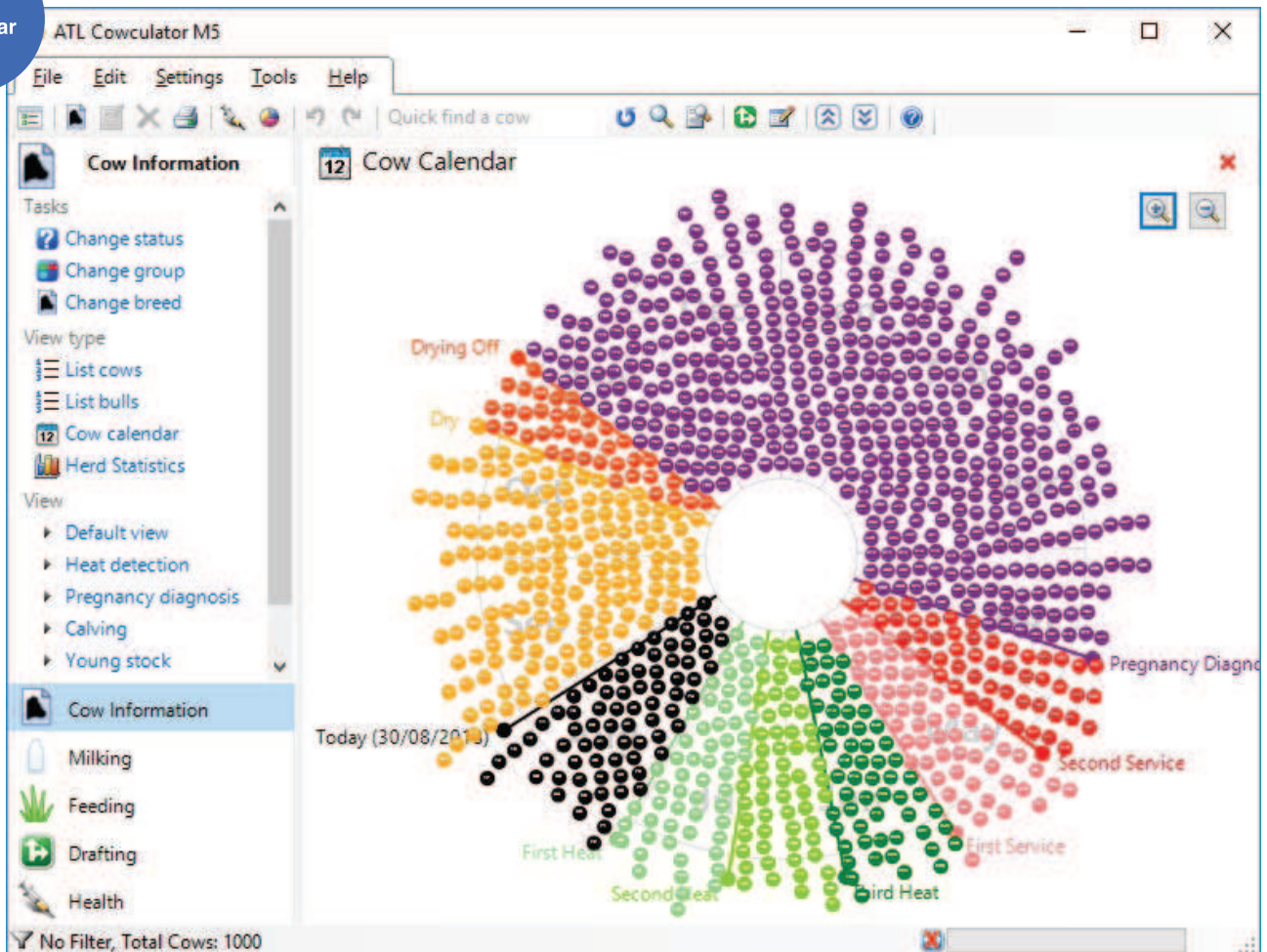
About the Cow Calendar

The cow calendar is a breeding calendar that shows at a glance the current state of the management of the herd. The calendar is circular with animals displayed as colour coded circles, showing which are due to calve, due for service, pregnancy diagnosis and drying off. This highlights animals with irregular heat cycles and also gives an overview of the calving pattern throughout the year.

How does it work? The breeding calendar is split into 12 segments, each representing a month of the year. These segments are further split into days in the month. The calendar is also split into 9 sections, each representing different periods of the cow's calving cycle. The calendar rotates in a clockwise direction. When a particular pointer reaches a particular animal, the action represented by the colour is taken on that animal.The following is an example of how the calendar works:

- 18th September - A cow is freshly calved. The cow's status is changed to Calved and the colour will change to black.

- 7th October - Look for the first heat, usually 21 days after calving. When you see signs of the first heat, change the cow's status to In Heat and the colour will change to green.
- 28th October - Look for signs of the second heat.
- 18th November - Look for signs of the third heat.
- 10th December - If the cow is served, the status should be changed to Served and the colour will change to pink.
- 5th February - Pregnancy diagnosis. If confirmed, the status should be changed to Pregnant and the colour will change to purple.
- 26th July - Drying off period starts. The status should be changed to Drying Off and the colour will change to orange.
- 8th August - Dry period starts. The status should be changed to dry and the colour of the circle will change to yellow.
- 8th September - Steaming up. The status should be changed to Steaming Up and the colour will change to blue.
- 8th October - Calf due today. If calved, the status should be changed to Calved, the colour changes to black and the process starts all over again.

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Milking Screen

About the Milking Screen

The milking screen shows a list of the animals and their milk yield for the current day. The screen also shows the predicted daily yield, deviation, lactation total and days in milk. Different views can be selected to show current milk yield, last 30 milk yields, dated milk yields, production rates, hold milk and slow milker cows.

Feeding Screen

About the Feeding Screen

The feeding screen shows a list of animals and their daily in parlour feed and total parlour feed in kilograms.

The view can be changed to show rations with milk yields, out of parlour rations with uneaten feed (including 3 day average uneaten feed and the number of visits), out of parlour attentions and drying off and steaming up dates.

Drafting Screen

About the Drafting Screen

The drafting screen shows a list of animals and the attentions that are set against them which can be used for drafting.

The tick boxes can be quickly 'ticked' to draft an animal or multiple animals highlighted and click any of the quick links on the left-hand side of the screen.

The 'last seen by drafting gate' column shows the time stamp when the animal's electronic tag was last read by the drafting gate system. The missing cows filter in the navigation menu displays animals which have not been seen by the drafting gate system for more than 24 hours.

Health Screen

About the Health Screen

The health screen shows a list of animals and the health attentions that are set against them. The default view includes the health attentions high cell count, hold antibiotic milk, mastitis, three quarter cow, test milk, veterinary attentions and foot attention.

Recording Medicine Use - The user can record medicine use against individual animals from within the health screen. The medicine name, description, batch number, purchase date, expiry date, quantity and how long to the hold milk for when it's administered are stored. When the medicine is administered, the program requires the name of the person administering the dose, the medicine, the date and the amount given.

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Status Tab

The Animal Record

The animal record stores information on each individual animal such as position in the lactation cycle, group, date of birth, lactation number, in parlour and out of parlour rations, milk yields and drafting information. Each and every animal has their own record. The first tab on the animal record is the animal status tab.

About the Animal Status Tab

The status tab allows the user to view and edit information relating to the animal's status. The status is more often than not related to the position of the animal in the lactation cycle. The following information is available on this tab:

- Status - The position of the animal in the lactation cycle or the status of the animal.
- Status Date - The date the status was last changed.
- Group - The animal's group.
- Previous Calving Date - The date of the previous calving.

- Date of Birth - The date the animal was born.
- Age - The age of the animal.
- Days in Milk - The number of days the animal has been in milk during this lactation.
- Number of Pregnancies - The number of pregnancies the animal has had.
  Lactation Number - The number of lactations the animal has had.
- Cow Name - The animal's name.
- Tag Code - The electronic ear tag (EID) code associated with the animal.
- National Animal Number - The national animal number associated with the animal.

At the bottom of the tab is the status history. This is a visual display of historical and predicted events shown on a time line from the animal's birth.
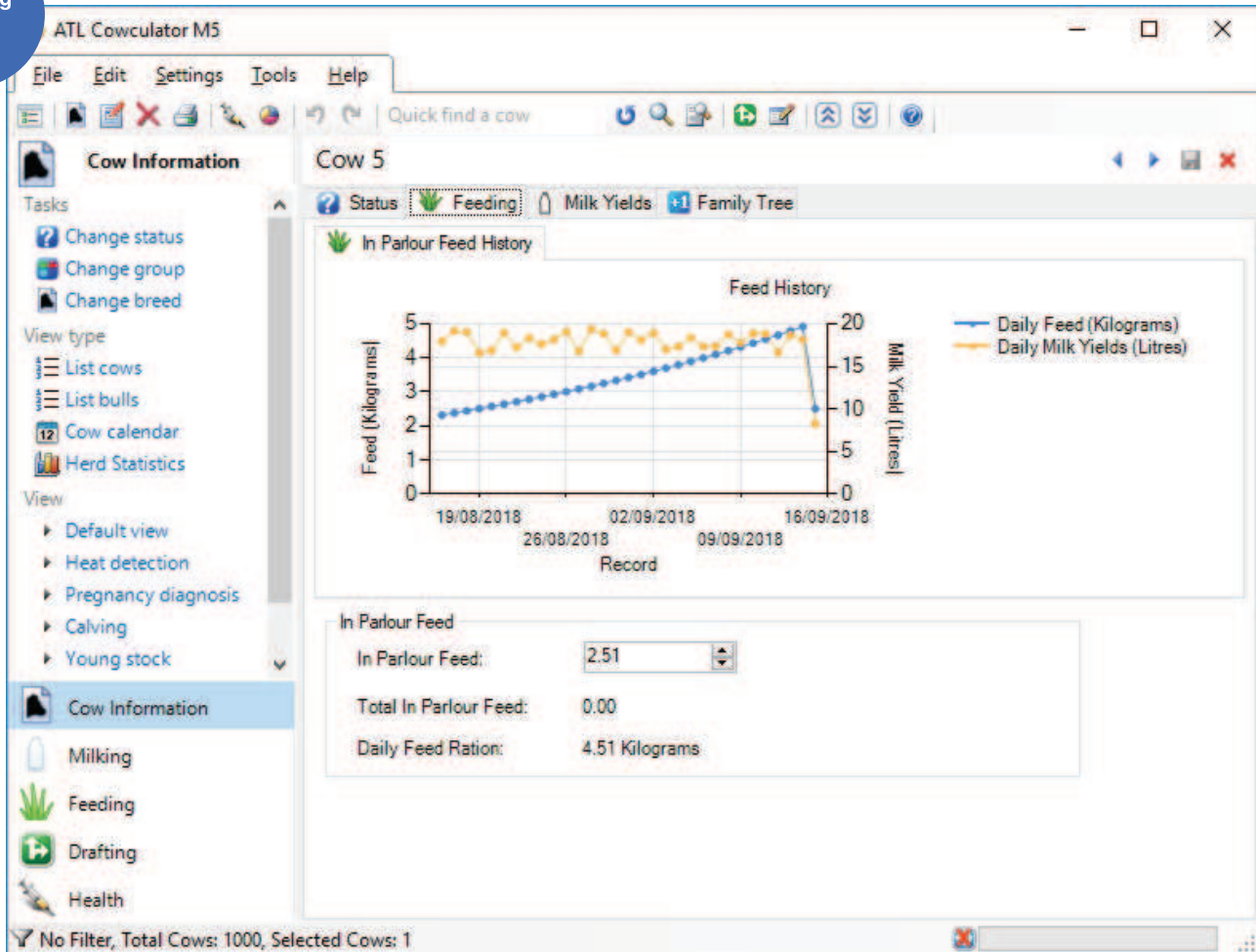
Feeding Tab

About the Feeding Tab

The feeding tab shows information related to the individual rations provided by the in parlour and out of parlour feeding systems. The tab is split into three sub-tabs - in parlour feed history, out of parlour feed history and feed split.

- In Parlour Feed History - This tab monitors the individual animal's milk production against the amount of feed provided in the milking parlour.

- Out of Parlour Feed History - This tab allows the user to view the amount of feed provided to the animal by the out of parlour feeding system. It also includes information on the visit and feeding averages for the animal. This allows the user to quickly spot an animal which is not feeding correctly and may have health problems.

- Feed Split - This tab shows the user a pie chart of the animal's daily feed ration and the split between in parlour and out of parlour feeding systems. The option for splitting the feed are as follows: in parlour feeding only, out of parlour feeding only, percentage split between in parlour and out of parlour, fixed out of parlour and calculated in parlour, and fixed in parlour and calculated out of parlour.

Milk Yields Graph Tab
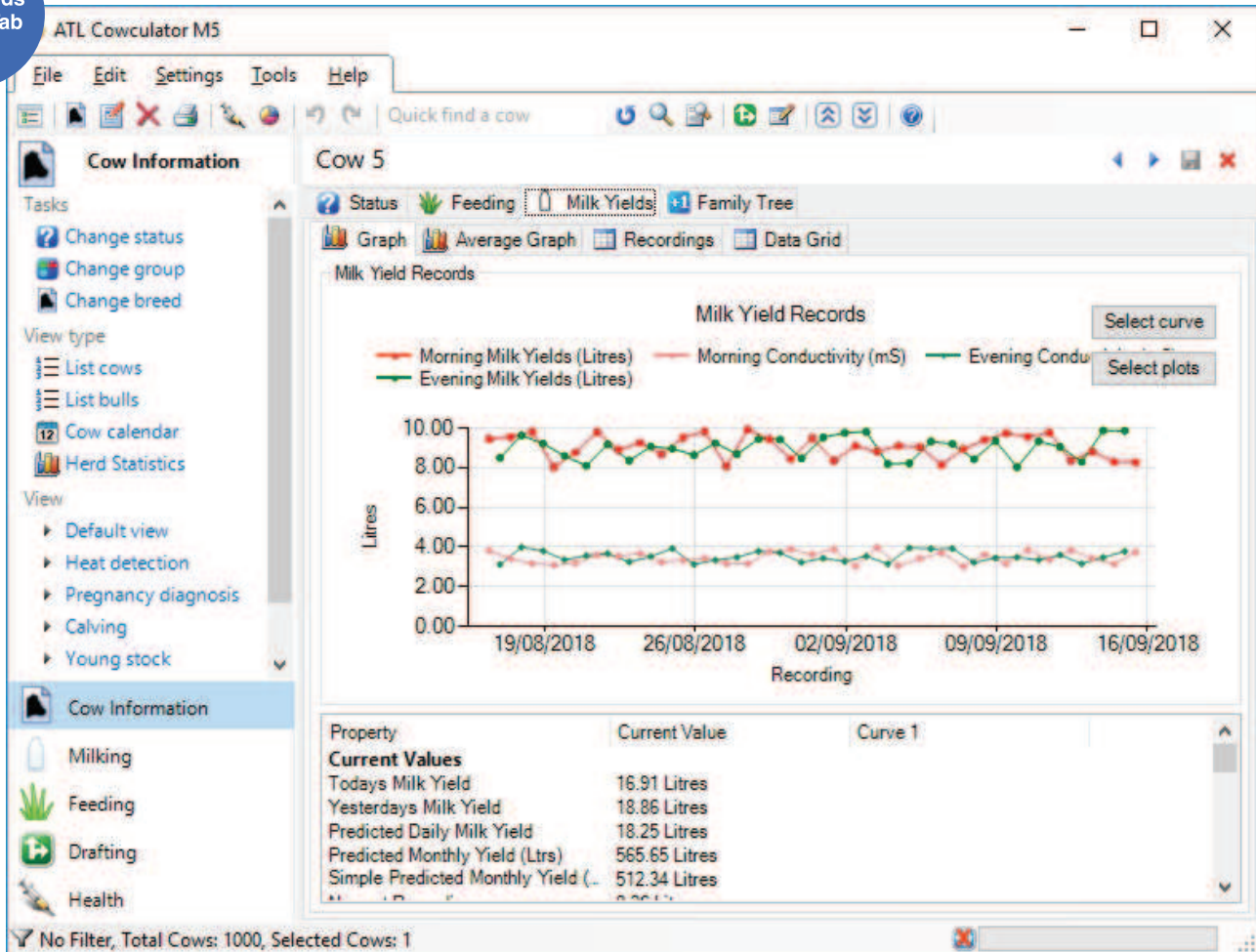
About the Milk Yields Graph Tab

The milk yields tab contains a line graph showing the milk yields in litres for each milking, as well as the total daily yield and the animal production rate. The production rate is the amount of milk the animal produces per minute between each milking. This is used to calculate the predicted daily yield, which provides an indication of whether an animal has met her production rate, and if she has not, can provide an indication of possible health problems. The following information is available:

- Todays Milk Yield - The animal's daily milk yield in litres for today.

- Yesterdays Mik Yield - The animal's daily milk yield in litres for yesterday.

- Predicted Daily Milk Yield - The predicted daily milk yield calculated using the animal's production rate.

- Newest Recording - The yield recorded from the previous milking in litres.

- Newest Production Rate - The latest production rate in millilitres per minute.

- Newest Deviation - The deviation from the average production rate in litres for the last milking.

- Newest Deviation Percentage - The percentage deviation from the average production rate for the previous milk recording.

- Lactation Total - The total milk produced by the animal during the current lactation in litres.

- Number of Milkings - The total number of milk yield recordings for this animal during the current lactation.

- Average Production Rates - The average production rate for the current lactation in millilitres per minute.

- Average Daily Yields - The average daily yield for the current lactation in litres.

Milk Yields Data Grid Tab

About the Milk Yields Data Grid Tab

The milk yields data grid tab allows the user to view the milk yields for each animal in more detail.

The tab shows the following information by default:

• Milking Date & Time - The date and time the milking started

• Milk Yield - The amount of milk produced during the milking.

• Conductivity - Highest value measured during the milking.

• Production Rate - Amount of milk the animal produces per minute between each milking.

• Stall Number - The stall the animal was milked in.

• Milking Length - The time taken to milk the animal.
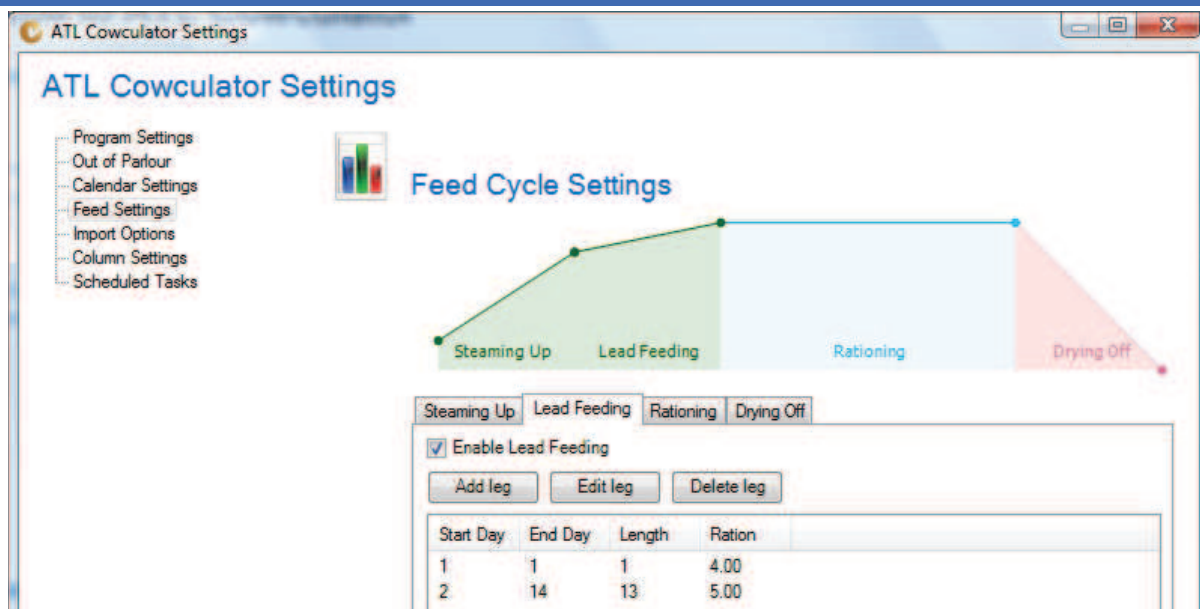
Steaming Up

Steaming up is the feeding of rations to late pregnant animals in an attempt to promote maximum milk production from the very beginning of the lactation. Steaming up usually commences about 4 weeks before the due date.

The steaming up calculation will only be used when the animal's status is set to steaming up. The process will continue until the end of the curve, or until the animal's status is changed to calved.

Lead Feeding

Lead feeding is the feeding of rations to newly calved animals, building their rations up to the normal rationing level. Lead feeding is usually carried out for about 4 weeks after calving.

Ration Feeding

Rationing is the standard feeding regime for the animals. There are various options for ration feeding that can be carried out from ATL Cowculator 2010. This is the part of the feeding regime where the ration calculations can be fed to the animals.

Please note that ration calculations do not have to be used within this section of the feeding regime. Custom feeding regimes which are manually entered by the user on an individual animal basis are also available, along with flat rate feeding.

Drying Off

The drying off setting allows the user to set the feeding regime for animals during both the drying off and dry periods. The drying off period involves the reduction in feeding down to a low-level or zero during the dry period.

The drying off feeding regime will occur when a animal's status is changed to drying off and will continue until the drying off period ends and the animal's status is changed to dry.
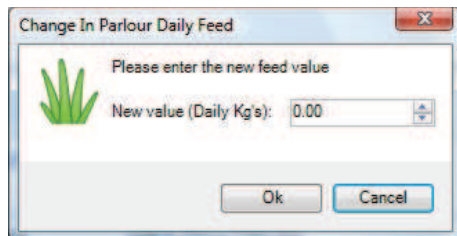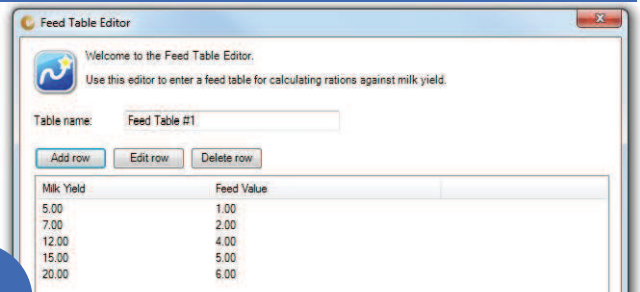
Manual Feeding

Manual feeding is where the user manages the animal's feed, changing feed rations manually, as and when required.

The feed rations can be changed manually for in parlour and out of parlour feeding - each has its own separate entry box.
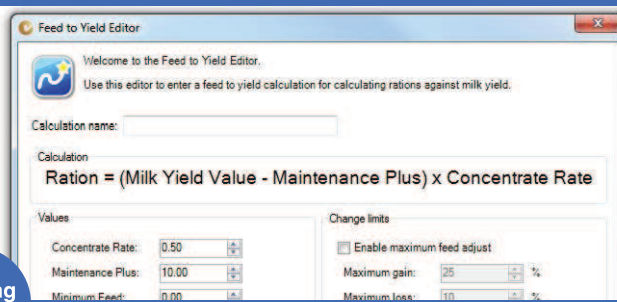
Feed Table

The feed table is a very simple way to allocate rations to the herd based upon milking performance. The user sets up the table so that for a given milk yield, the animal will get a set amount on feed.

Using the table above as an example, a cow that produces between 12 and 15 litres of milk, will receive a ration of 4 kilograms and a cow which produces more than 20 litres of milk will receive a ration of 6 kilograms of feed.

Feeding to Yield

The feed to yield calculation is a more complex way to allocate rations to individual animals based upon the amount of milk they are producing. The calculation uses milk yields from the milk meters or imported from NMR or CIS recording figures. This calculation treats all animals as individuals and provides a very accurate feeding regime.

The user can set minimum and maximum feed adjustment values to provide a safety net and no allow large adjustments in feed that could effect the health of the animal.
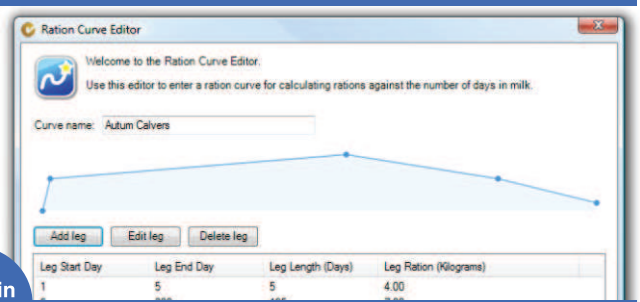
Feeding Based upon Days in Milk

The feeding based upon days in milk allows the user to create a feeding regime based upon the number of days an animal has been in milk. The user decides the ration they would like to feed the animal after a certain number of days in milk, adding as many points to the curve as required, and the software works out the amount of feed to be fed between the entered points and changes the animal's ration accordingly.

IMPORTANT - The limiting factor on the size of the ration that can be fed, is determined by the minimum amount the in parlour or out of parlour feeders can feed.
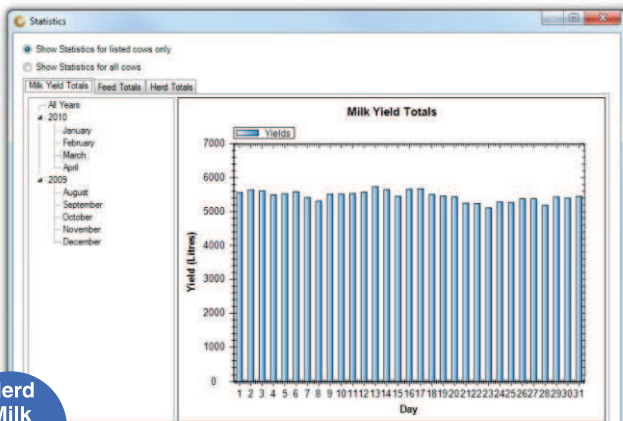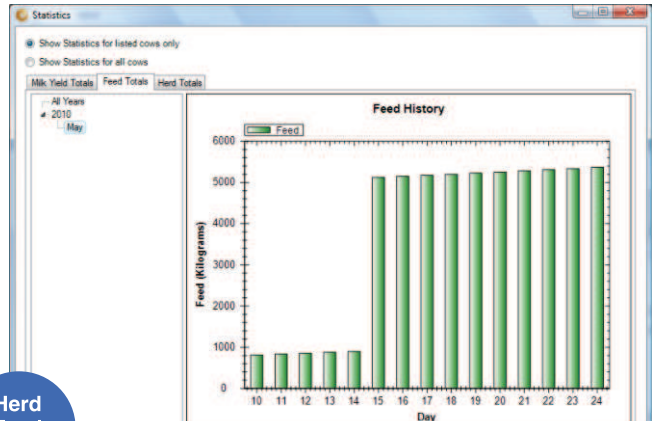
Herd Milk Yield Totals

The milk yield totals tab shows all the milk produced by the herd in either daily, monthly or yearly totals displayed graphically. Milk yield totals are coloured blue on the graph.
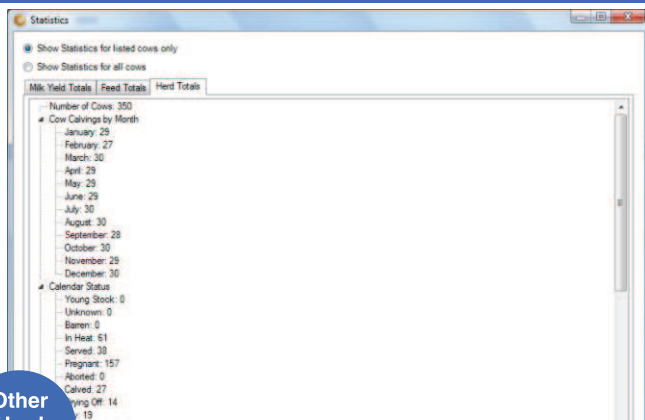

Herd Feed Totals

The feed totals show all the feed used by the herd through the feeding systems in either daily, monthly or yearly totals displayed graphically. Feed totals are coloured green on the graph.

The feed totals include rations fed through both in parlour and out of parlour feeding systems. If only one type of feeding system is being used, the feed from that system will only be used within the totals.

Other Herd Totals

The herd totals tab show various totals from within the software. The following totals are available: number of animals, number of births per month, calendar status, warnings, animals with yield variations, average in parlour feed, total in parlour daily feed, average out of parlour feed A, average out of parlour feed B, out of parlour feed used today, average milk yield, daily milk yield, group name and number, number of animals in group, group daily milk yield and group average daily yield.
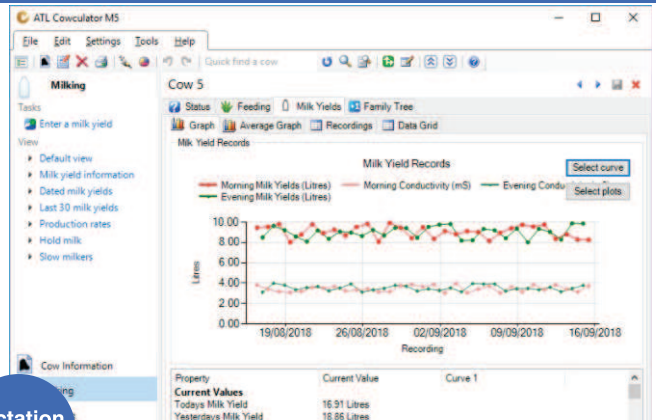
Comparing Lactation Curves

Users can select multiple lactation curves to be graphically displayed within each animal's record. This enables performance to be compared.

The values that can be compared are: 100 day lactation total, 6 month lactation total, 12 month lactation total, lactation total, number of milkings, average production rates, average daily yields, average milking length and number of low yield flags.

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