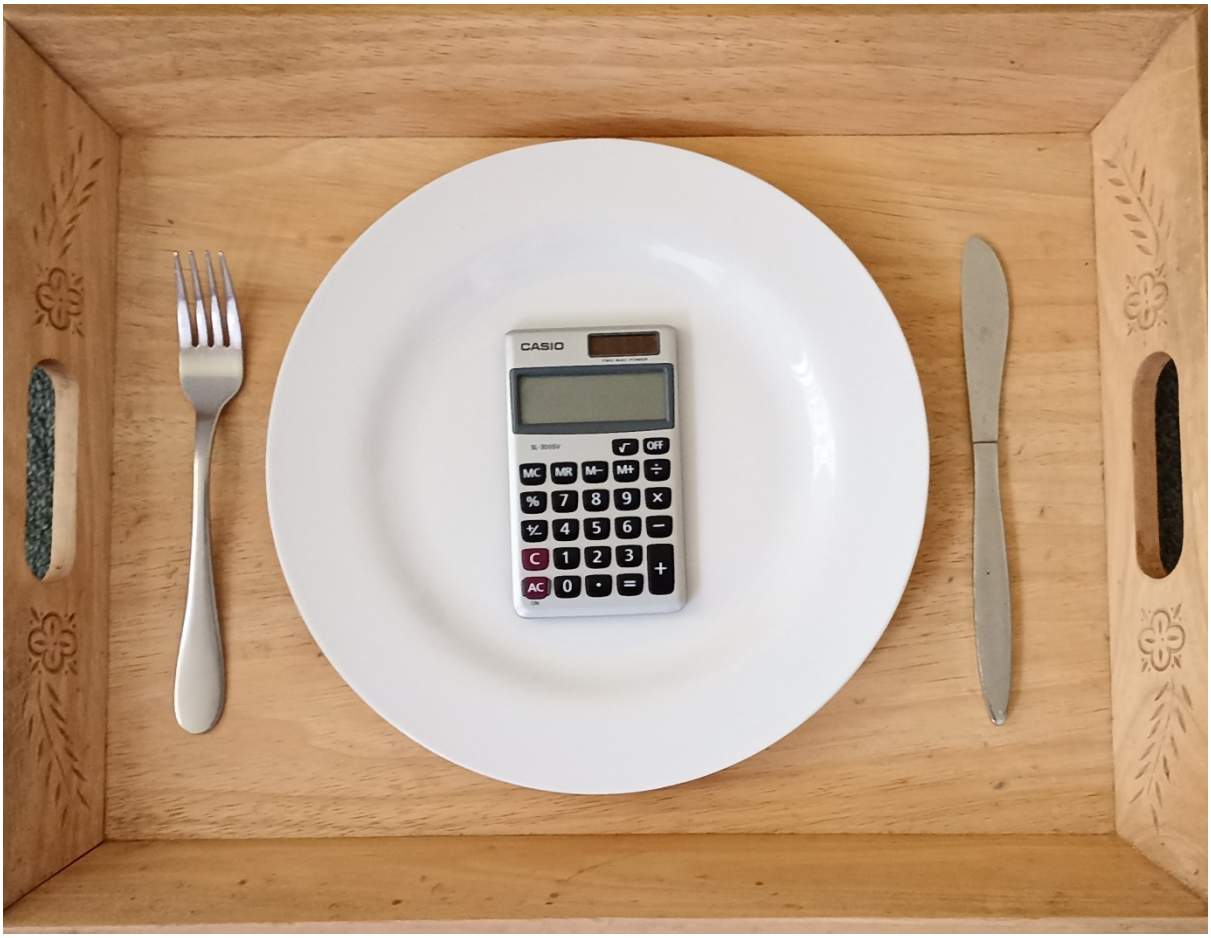
INTRODUCTION

CAL100 is a calculator for working out the amounts of individual ingredients needed to make a meal which matches a set of target macro-nutrient ratios for carbohydrates, fat, and protein as well as the energy sources of fibre and saturated fat.

Many consider getting a balance of macro-nutrients within a target range to be one of the keys to optimum health.

Meals become a collection of pre-calculated meals for macro-nutrients which can then be put together to make a food list for that day.



The calculator came about because (even with practice) matching a particular set of ratios to a meal can take up to an hour and still not be very accurate.

In addition, some people aim to minimise or maximise a particular nutrient and adjust the ratios accordingly; e.g. a weight lifter wanting to build muscle will normally aim at a target for protein (usually in grams) per meal with other nutrients making up the rest.

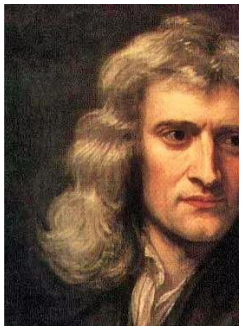
Likewise, an Atkins dieter will try not to exceed a carb amount typically around 20 grams per day.

The complexities of trying to work out a new meal (usually by trial and error) to match the macro requirements can be somewhat daunting.

In practice, repeating the same meal over many months rather than opting to plan for a new one is a more likely option.

CAL100 aims to give you a “what if” toolkit for matching ingredients to meal targets mainly by ratios but with options to favour a particular food group by minimum / maximum ratio or weight.

Using CAL100, with practice, new meals can be worked out in less than 5 minutes. In addition, a library of pre-calculated meals can be built up. Using the program is quite recreational. Perhaps similar to doing jigsaw puzzles with all the edges and sky done for you.



The programme uses Microsoft Excel 2007 and above (32bit version) with the Solver extension enabled (This extension is part of a typical install of Excel). For those interested, this extension uses problem-solving techniques pioneered by the mathematicians: Isaac Newton and Joseph Raphson in the 17th century.

The programme also uses a technique familiar to accountants called “double entry” accounting. This will spot most mistakes during the entry of any new foods added. Errors by either the food manufacturers or by user typos can be found in this way.

In addition, supermarket food labels can be **read directly** from their respective websites which again reduces possible typo errors.

CAL100 was originally intended to complement a common web-based meal planner *MyFitnessPal*. It has, however moved on to something more than just an “add on”.

It’s now become a new approach to diets starting from scratch and a blank sheet of paper.

PS: The largest part of the diet theory of this programme is from:

“Dietary Guidelines for Americans”

Published by the ***“US Department of Agriculture“***

ITS quite readable despite the name!

Enjoy!

Richard Marsden

Contents

V1_E

CRIB NOTES for SETUP

STEP 1

Requirement: Excel 2007 to Excel 2019 running on Windows.

CAL100 uses an add-in called Solver; it's installed as part of the Excel (or Office install) **BUT** is not enabled by default.

Enabling it is slightly different depending on the version of Excel you have. See:

CAL100_SOLVER_INSTALL.docx

CAL100 uses a new scheme of working to calculate macro-nutrient targets. Briefly glance over this document to get a jist of this new method. (about 30 minutes)

Once you are reasonably confident, the initial settings for your diet aims need to be set.

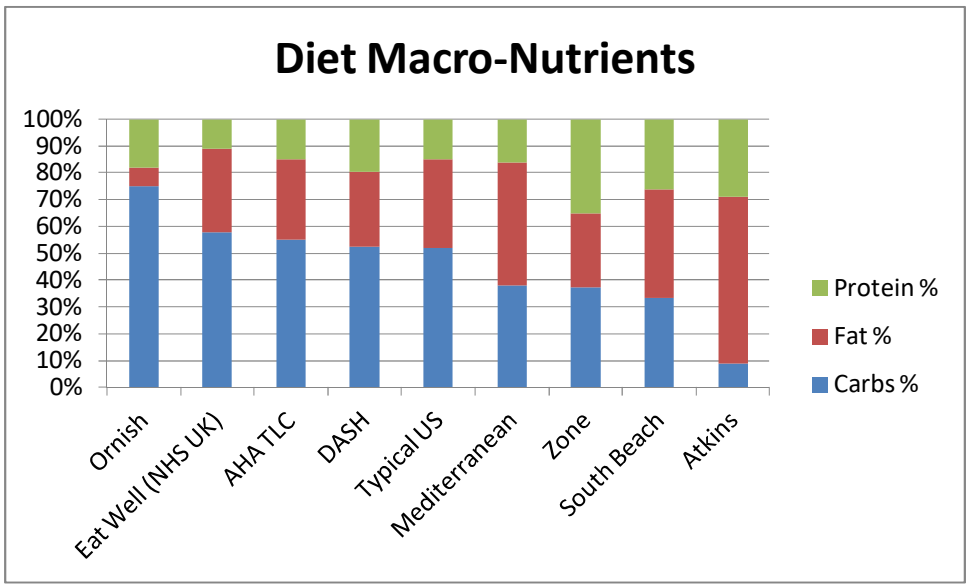
HINT: CAL100 is a small one file programme, so it's easy to make copies. Label copies CAL100_test1, CAL100_test2, etc, as you try out the various sections.

Having copies allows you to experiment without consequences and gain experience.

TO BEGIN

Typical macro-nutrient energy values of common diet plans are listed below. Remember, each plan will also have a theme and a reasoning as to its use. Whether it's to lose weight, gain weight, control blood sugar or something else.

Each plan will also have a range of how tight the values should be observed. In this case, the values listed here are a "starting" point for this type of diet.



AHA TLC: American Heart Association (AHA) Therapeutic Lifestyle Changes (TLC)
Typical US: Health Nutrition Examination Survey (NHANES III) Third Edition
DASH diet (Dietary Approaches to Stop Hypertension) US National Institutes of Health (NIH)

	Carbs %	Fat %	Protein %
Ornish	75	7	18
Eat Well (NHS UK)	58	31	11
AHA TLC	55	30	15
DASH	53	28	20
Typical US	52	33	15
Mediterranean	38	46	16
Zone	37	27	35
South Beach	33	40	26
Atkins	9	62	29

For the initial setup of CAL100, you will typically familiarise yourself with the *Macro* page first. This page has 3 calculators, one of which will suit your diet's approach to listing macro-nutrients.

It is the **Default day values** at the top of the *Macro* sheet that are important to fill in. All calculations are based on this target.

Once Default day values have been decided. You will normally use one of the calculators on the *Macro* sheet to build up your first PLAN, which are then automatically copied to the *Config* sheet.

You'll then need to get busy on your favourite supermarket website and build up your collection of CAL100 food items.

So the first steps are to re-read the *Macro* sheet and then *Config* sheet instructions.

You can locate the essential first steps in this document by searching for the keyword: #set

NOTE: The examples shown use my personal current diet plan. In some respects, these are not typical, as exercise features quite highly in my daily routine. As a consequence, carbs and protein may seem to be at the higher end of the scale to suit this lifestyle.

GOOD LUCK!

LICENSING

INTRO

The CAL100 spreadsheet is a product that you will enjoy using once you start, so is "try before you buy" with a new twist on licensing.

After a free usage period, regular users will need to obtain a licence. However, your copies of the spreadsheet can still be used and shared free of charge with friends and family for occasional use.

For a college or school, this licensing will also mean short project work for the whole class can be set.

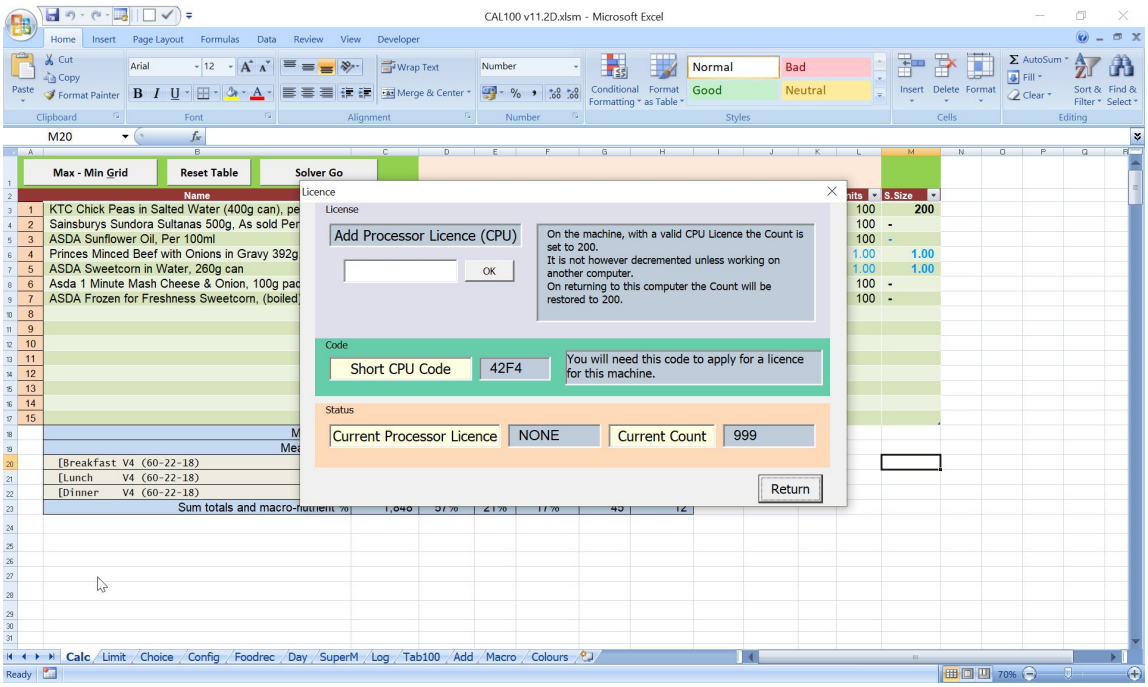
These shared copies can be fully used for about 3 weeks before a “Free Usage Counter” in the spreadsheet indicates it needs to be “recharged”.

A licensed computer becomes a “recharge” point for this.

Users will continue to benefit from using CAL100 even when unlicensed and any free period has expired; however, new meal ideas cannot be created.

STATUS

Licensing information can be accessed by pressing Cntl L



Licence information is stored in CAL100 in two parts.

1) A Current Processor Licence, also called CPU for short.

2) A Count. This is the “Free Usage” count. The Count is set to 500 when first using CAL100.

On an **<u>unlicensed</u>** machine, it is decremented each time the main ***<u>Solver Go</u>*** button is pressed on the *Calc* Sheet.

Once a Count is used up, CAL100 will still work apart from the ***Solver Go*** button.

The spreadsheet Count can be recharged back to a Count of 200 by reopening the spreadsheet on the licensed machine it came from. Confirm the recharge by opening this Licence form.

********** Extra Information **********

1) Once the spreadsheet has a CPU licence for the machine, it no longer requires the “Free Usage” Count, so it is not decremented. It is set to a default 200 Count for use on unlicensed computers.

2) If you try to recharge the spreadsheet on a licensed computer **<u>but</u>** was not the original machine it came from, then you will need to re-enter the machine’s Processor Licence code (top section part) into the spreadsheet needing recharge.

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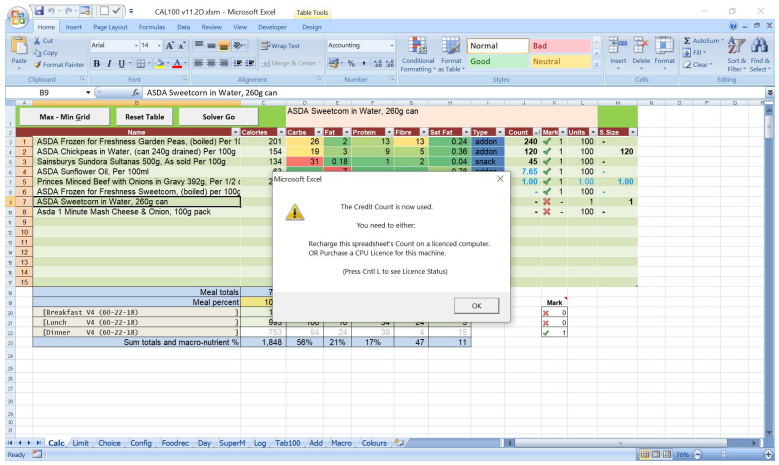
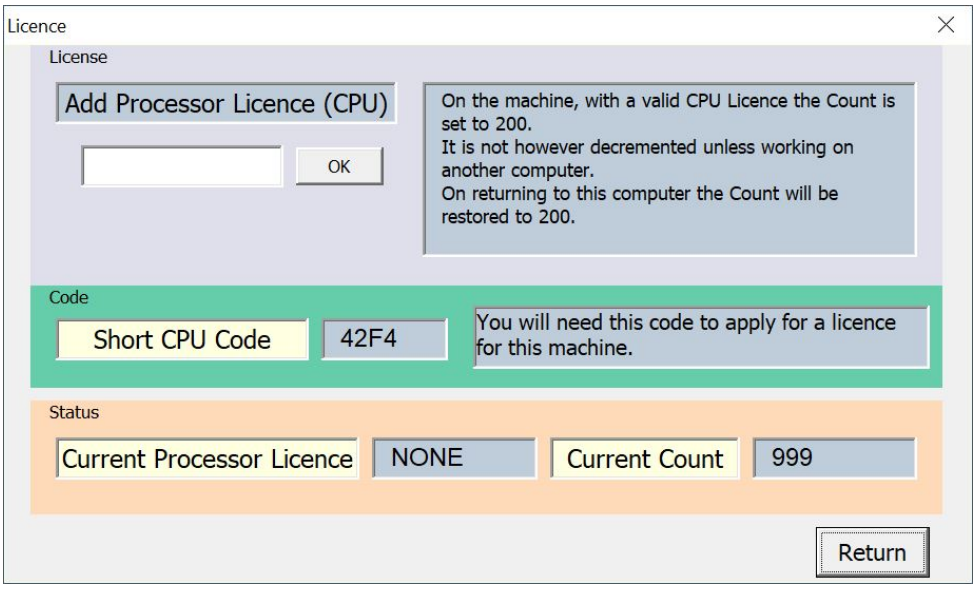
Used CREDIT COUNT Message



LICENCE STATUS POPUP

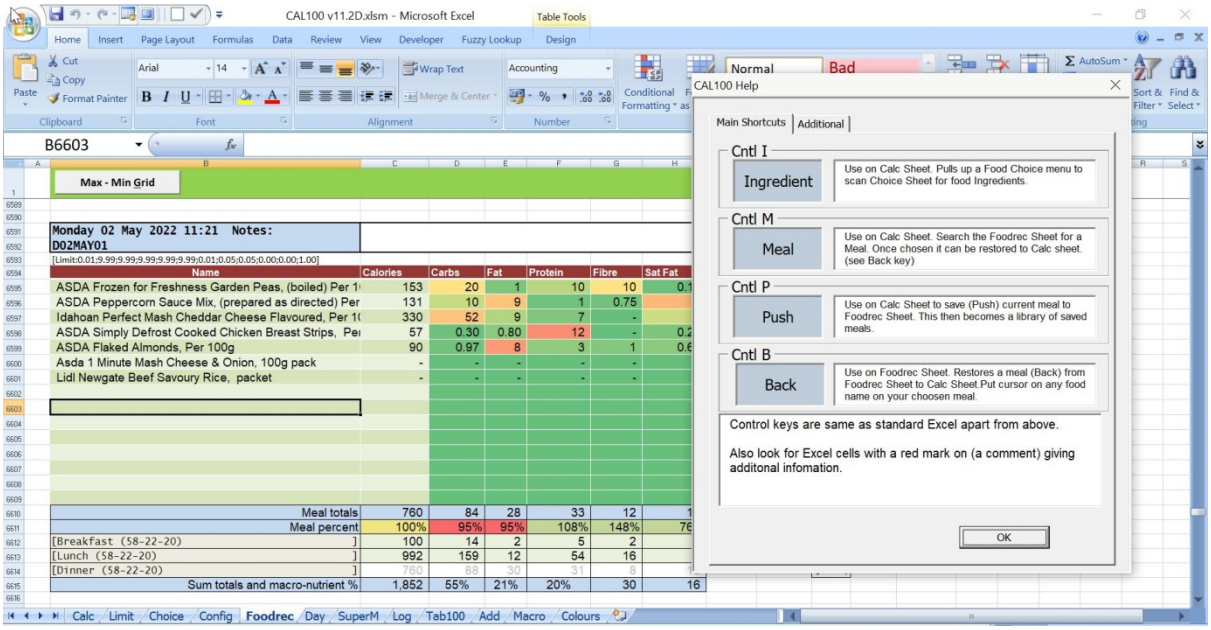


Top section: Used for adding a 4 character licence. This will be a code **sent to you** from the CAL100 Help Desk to unlock this machine's CPU licence entry.

Middle section: This 4 character code is needed when applying for a licence. It is a shortened version of the computer's serial number (CPU).

Bottom section: Shows current status.

HELP POPUP



********** Extra Information 1 **********

HINT: By pressing the F1 key, a “Help Pop-Up” will show a brief reminder of the “control code” shortcuts used by CAL100. Note the **Tabs** at the top of pop up screen to get further information.

********** Extra Information 2 **********

HINT: For those of you more familiar with Macs:

Using a few Windows keyboard shortcuts speeds up the use of CAL100 enormously. For “copy and paste” on a Windows computer.

Select All = *Ctrl a* Copy = *Ctrl c* *Paste* = *Ctrl v*

Using these selection keys will become second nature.

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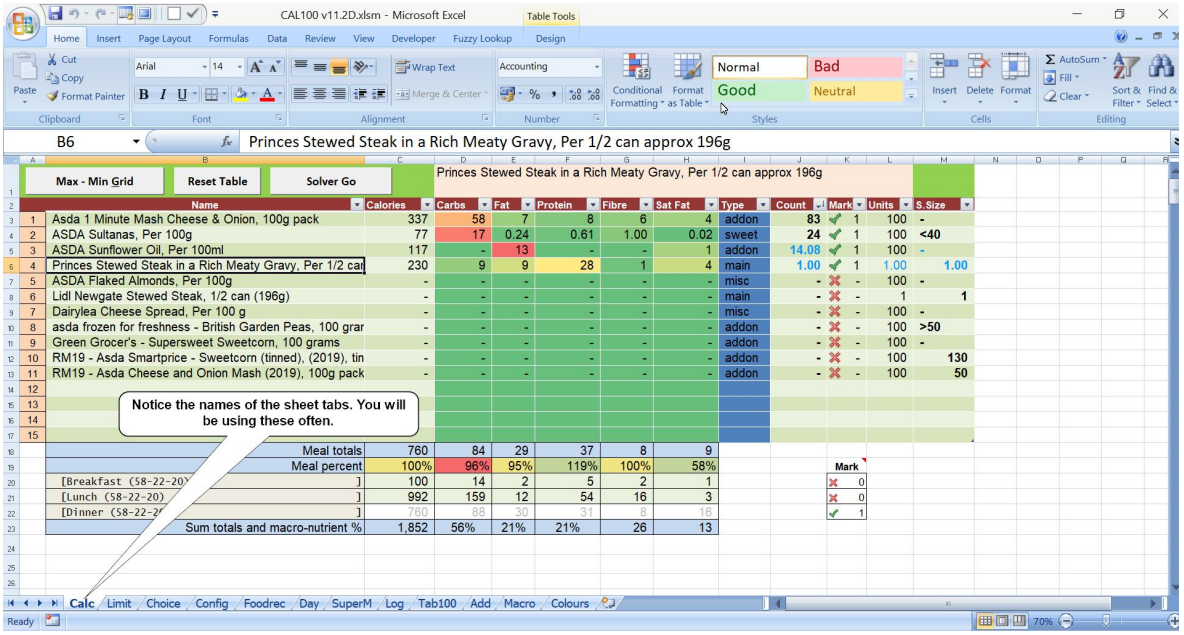
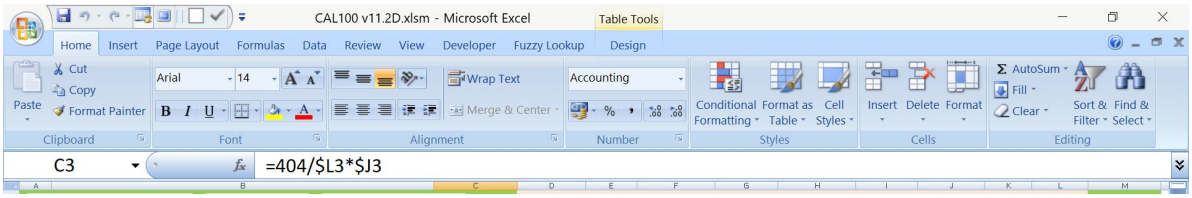
THE SHEETS

THE CALC SHEET

On opening CAL100. The first screen is the *Calc* sheet.

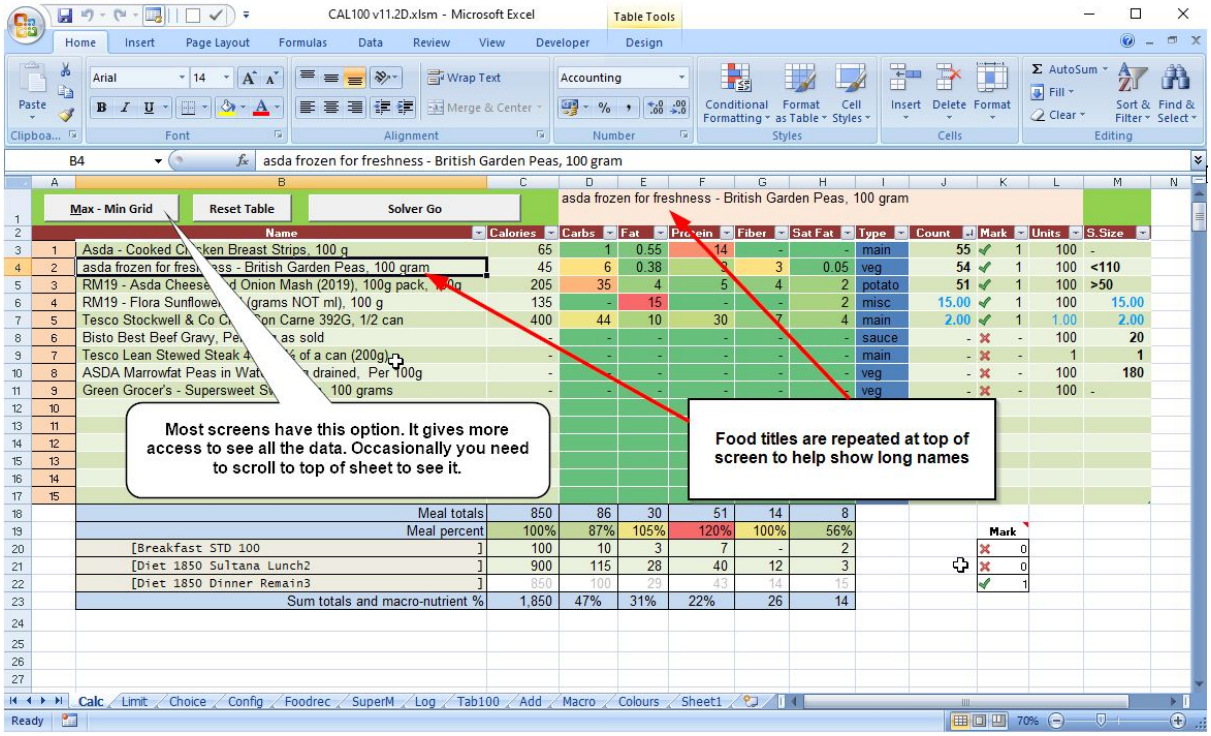




You will also see the standard Excel headers on each page. These can be ignored unless there is a mention of a particular option in this documentation. Examples being: “Save” and “Save As”.

Occasionally, you will see some gobbledygook formulas shown; again, these can be ignored.

If not showing. You may need to scroll up to see the option buttons at the top of the sheet.



You create meals to match your chosen ratios. You will mainly work on the *Calc* page. To give a quick overview, in the example shown is a list of foods which have a tick or crosses next to each entry. Selection is by mouse double click.

There are 3 meals listed: *breakfast*, *lunch* and *dinner*. Again, select by using the tick boxes with a mouse double click. The currently selected meal appears with macro values greyed out (but visible); this is because you are amending those particular meal values with new information.

********** Extra Information **********

Where possible, if an item (the Excel cell) is shown with a white background and black text, it is editable by you.

One exception to this are some of the table columns have an alternating row colour to make long rows of text more readable. These columns are mentioned further in this document.

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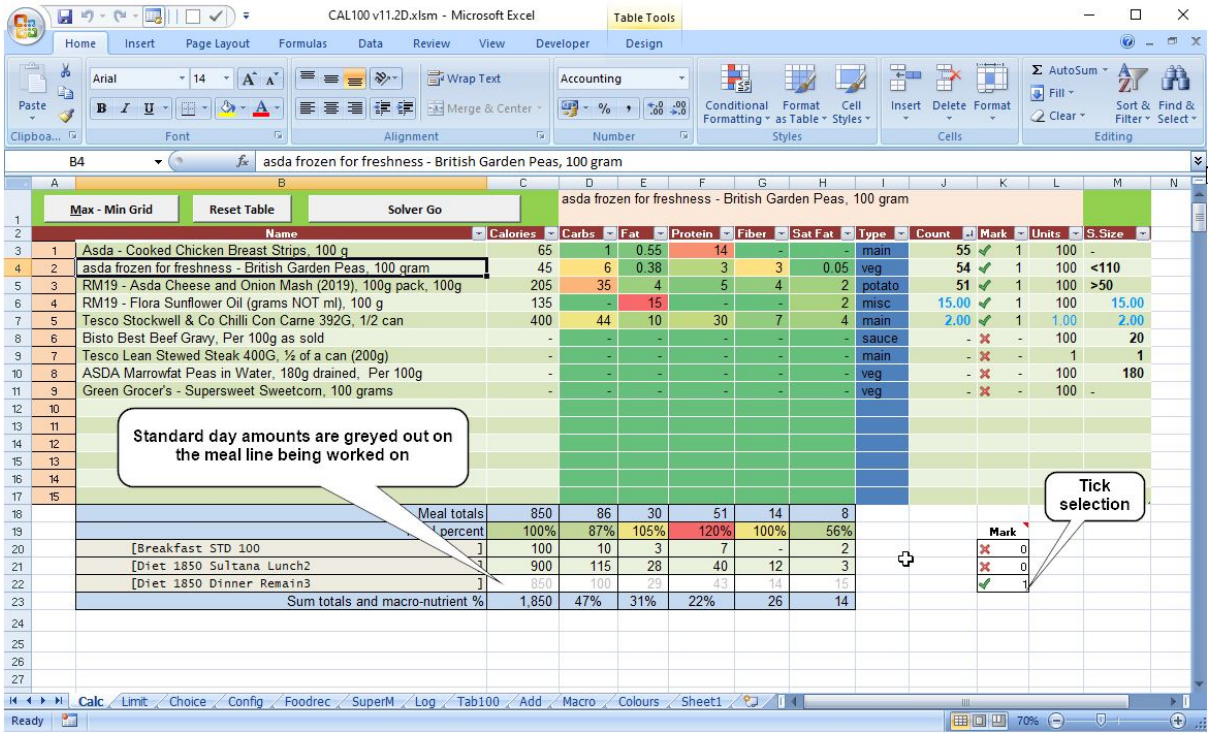
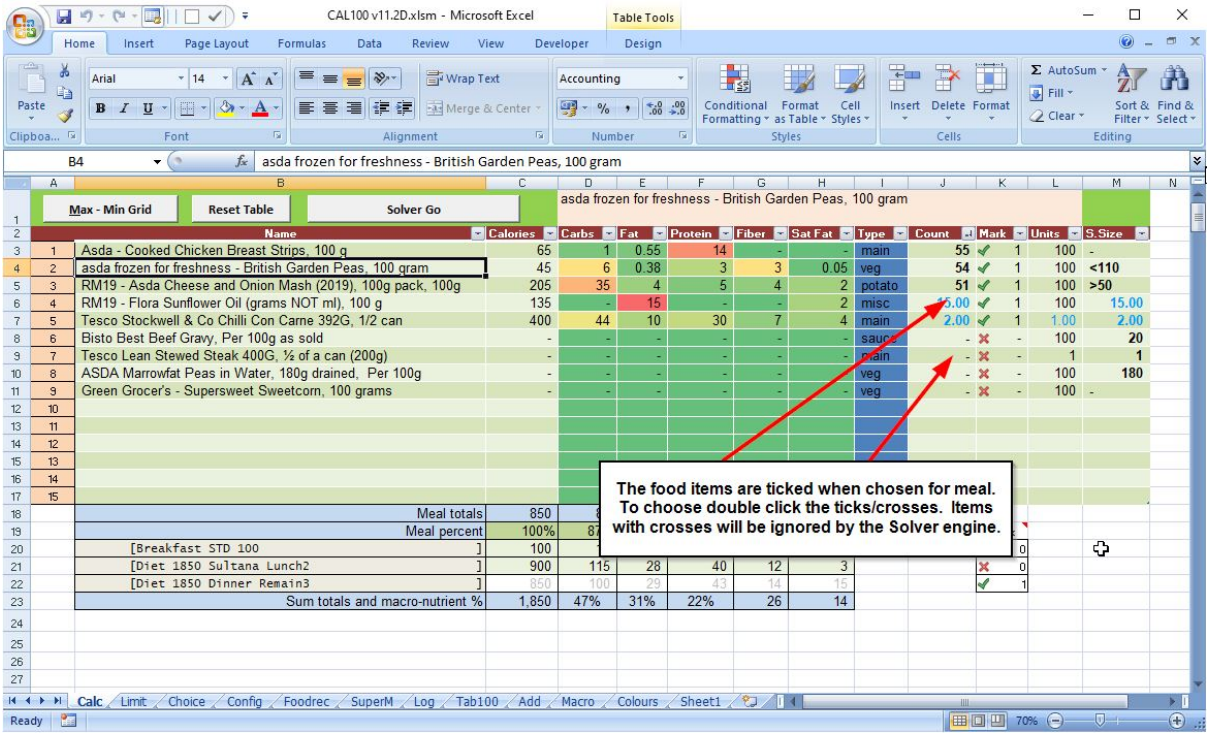
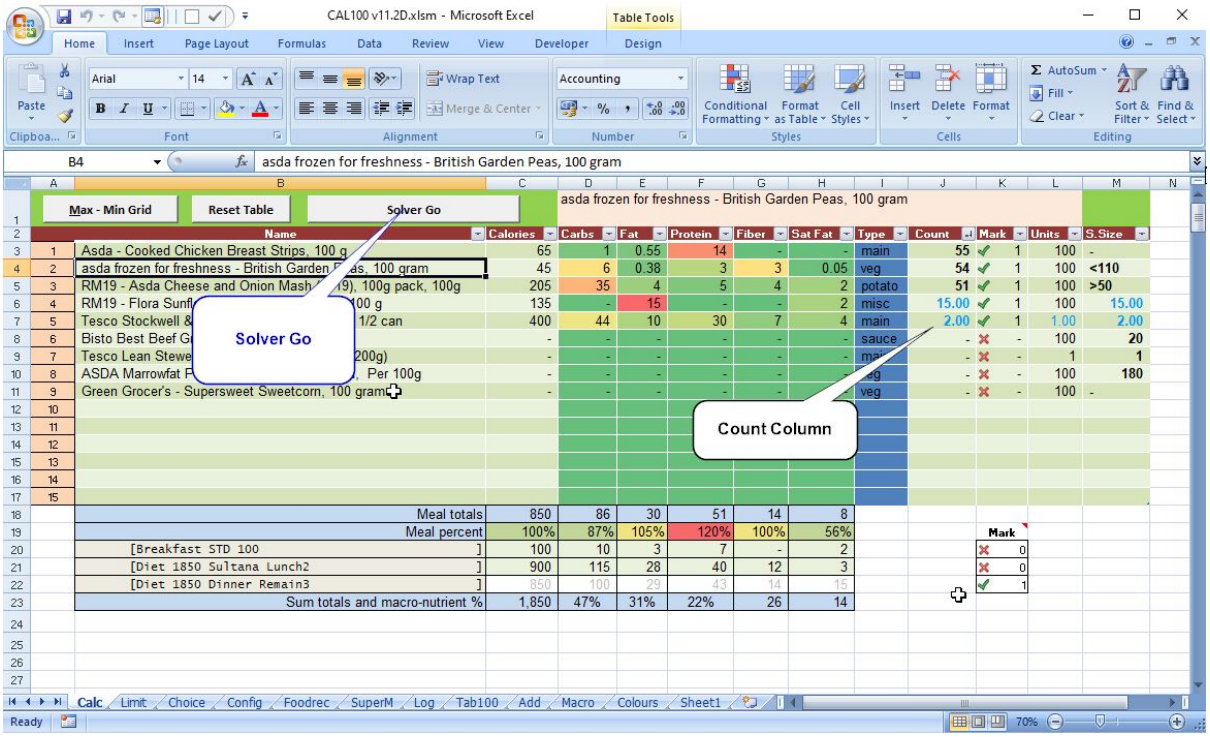
A selected meal being worked on is shown greyed out (but visible) as you will be **altering** its values.



Note the ticks to select an ingredient.



Pressing ***Solver Go*** triggers a calculation of the food amounts required to meet the limits set for the meal. The answer will be shown in the ***Count*** Column.



The *Calc* sheet is filled with items that may be considered as part of a meal.

Each item will be calculated based on whether a food item is measured by weight (100 grams or ml) or by portion (1 pack, ½ tin, 1 biscuit, etc.).

The unit is described in more detail at the end of the product name.

Notice the column ***Units*** is auto-filled with either a 100 (in black) or 1.00 (in blue) to show whether the selected foods are in units of **100g/ml** or by **portion** (1.00)

Amounts in ***Serving Size*** column (abbr. S. Size) will guide the programme as to whether you **only** want a fixed amount for an ingredient.

e.g. 2 biscuits, 50 grams of Lentils, 70 ml of Sunflower Oil, etc.

If, however, the ***Serving Size*** value is left blank, ***Solver Go*** will **auto adjust** the ingredient's amount and any other ingredients without a serving size and try to match the target. This will be shown in the ***Count*** column after running ***Solver Go***.

Solver works on a **"best fit"** solution for the makeup of a meal. On occasion, this means that choosing an ingredient by ticking it in the ***Mark*** column results in it **not** being used.

The "best fit" can be useful if trying to decide, for example, which vegetables to have with a dinner. Tick them all and check the result.

However, ingredients can be forced to be included by specifying a minimum amount.

********** Extra Information **********

Note 1) ***Serving Size*** and ***Count*** column just use numbers. Weights and portion descriptions are part of the ingredient name.

Note 2) For portions (shown as a 1 in the ***Units*** column). If an ingredient **name** says, for example, ½ packet of sauce mix and after running ***Solver Go*** the ***Count*** column shows 2; this means two ½ packets, i.e. 1 packet.

Note 3) For items in grams and ml (which are listed as 100 in the ***Units*** column). After running ***Solver Go*** the ***Count*** column shows 122 this means 122 grams of the ingredient.

Note 4) Numbers below 20 are shown with 2 decimal places.

Note 5) Values are **only** fully updated once ***Solver Go*** **has run**.

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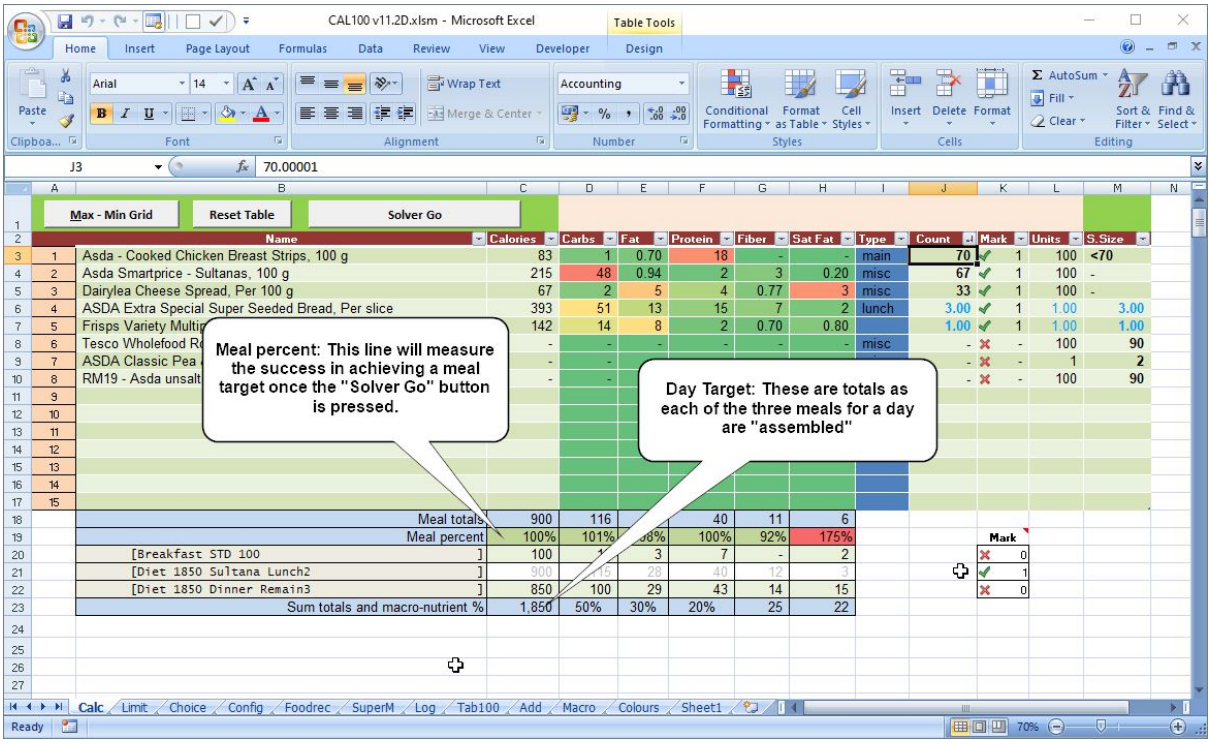
In the screenshot shown below *Day Totals* were preset for a 1850 Cals, 50% Carb, 30% Fat and 20% Protein daily amount. ***Solver Go*** has just about achieved a spot on target in this case for macro-nutrients.

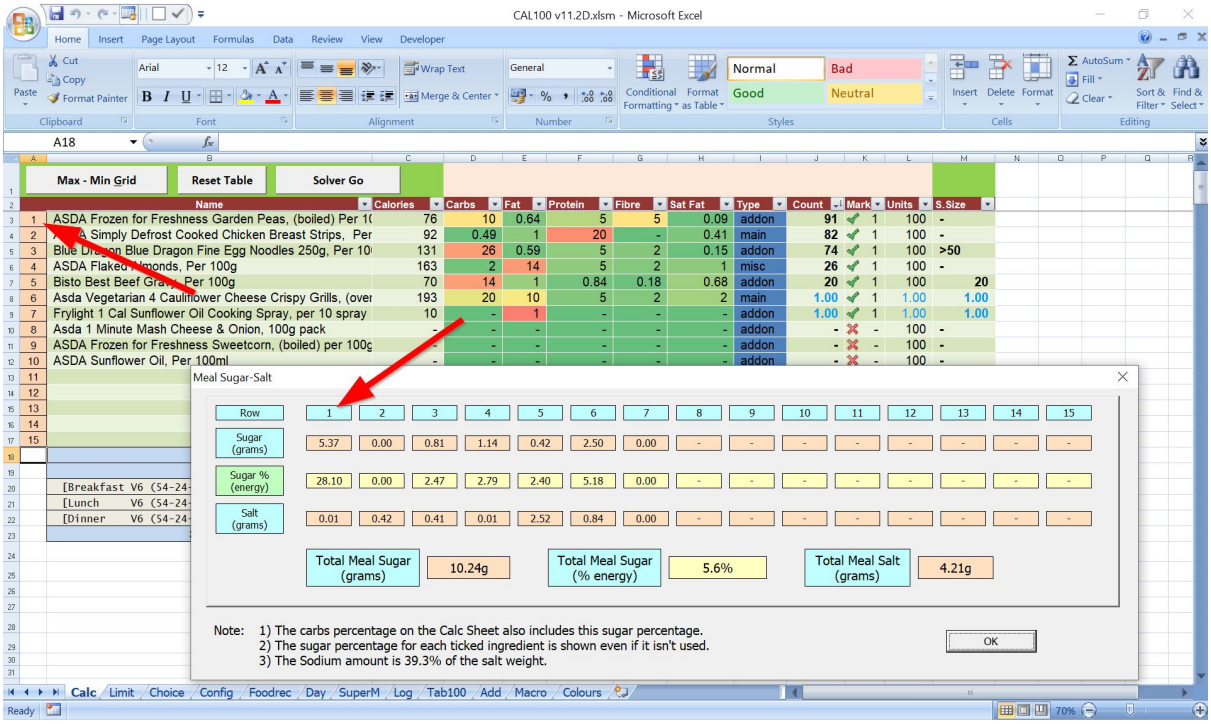
The fibre allowance was originally set to 26 grams but has been allowed to run slightly under. Saturated fat (abbr. Sat Fat) needs more work (if needed) by altering the Limits (see next page).



It is the **Meal percent** line that is your **main guide** as to the success of ***Solver Go*** at achieving a meal target. It uses a simple traffic light colour scheme to indicate this.

Red = Over Limit, Yellow = OK but near Limit, Green = Within Limit

In addition, you can also view the sugar and salt values of your meal by pressing **Ctrl S**



The numbering scheme on the sheet and popup locates which ingredient is being referred to.

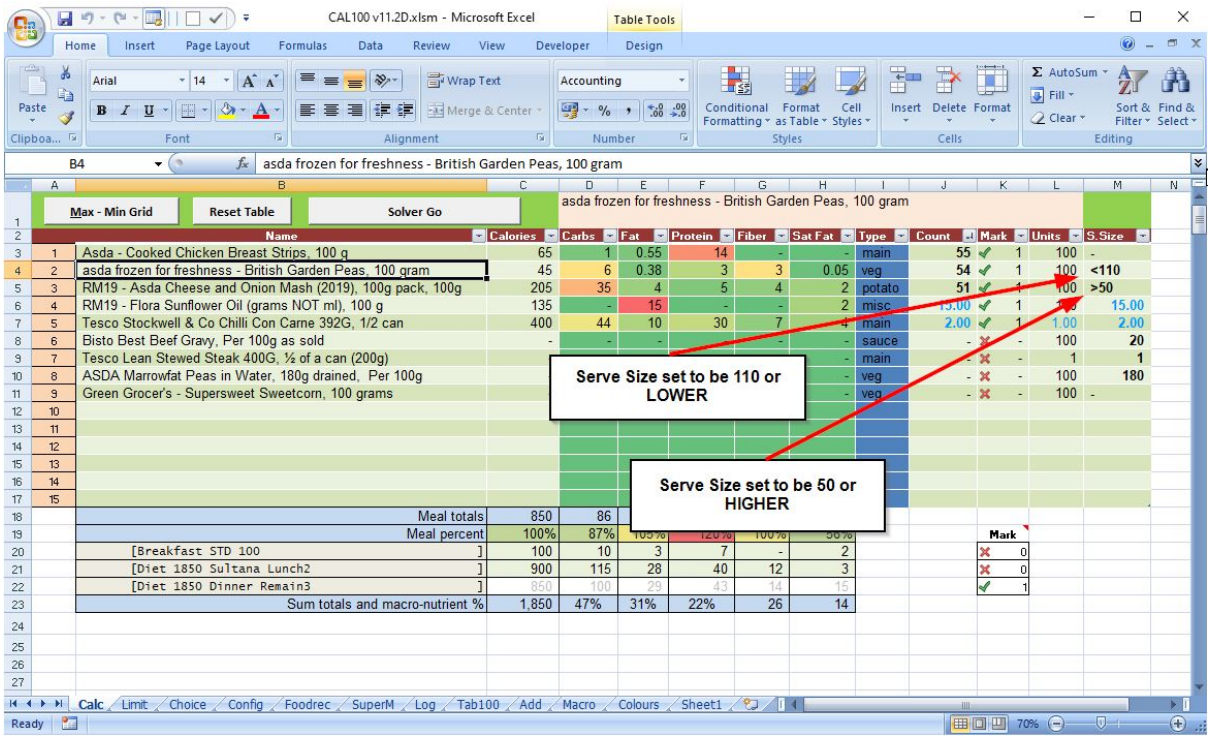
CALC and LIMIT sheets working together.

As you use the programme, there will be times when you need to compromise between matching macro-nutrient targets or finish using a portion, e.g. using all of a tin of beans even if protein goes over target.

The programme needs to be steered towards a realistic answer using limits. Otherwise, implausible meals can be created, such as porridge made from 190 grams of oats with 1ml of milk. It will do this if macro-nutrient ratios are correct.

A range of steering strategies are available.

In the above example, the steering could be done by specifying a minimum amount of milk. Using the symbols > < before an amount in ***Serving Size*** column (abbr. S. Size) will guide the programme. Note: < symbol means *less than OR equa*l and > symbol *more than OR equal*.



An alternative strategy is to add other ingredients that have a high quantity of the macro you are short of; e.g. adding Sunflower Oil to correct a shortfall in fat.

(for more details of this, *see Limit* sheet description)

Colour coding of an ingredient entry assists in this. (Notice the entry for Flora Sunflower Oil in the above screenshot).

Likewise, another type of steering is to allow a particular macro-nutrient to go over target as a preference but definitely not under target and vice versa as needed.

Some meals simply will not compute within the limits set.

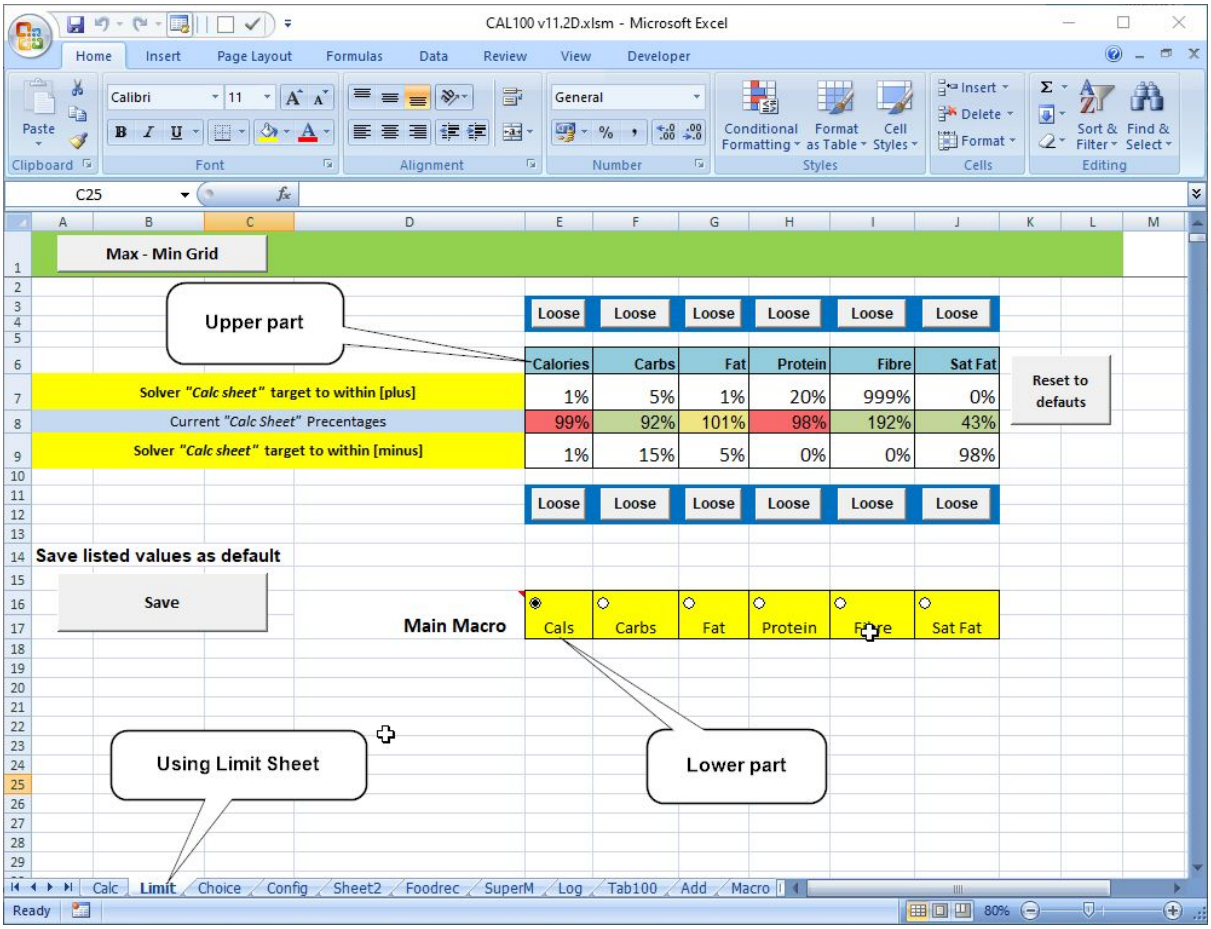
The steering options can be:

1) To alter the limits for the macro-nutrient.
2) Remove an ingredients fixed weight or portion size (by making the ingredients *Serving Size* value blank)
3) Add the symbols <> to a *Serving Size.*
4) Untick an ingredient.
5) Add another ingredient high in the macro you are short of.
6) If all else fails *Count* can be manually typed in.

HINT: It is useful practice to add what could be a nightmare ingredient, such as adding Rice to a low carb diet and working with the result.

THE LIMIT SHEET

Locate the *Limit* sheet tab



There are two main parts to this sheet:

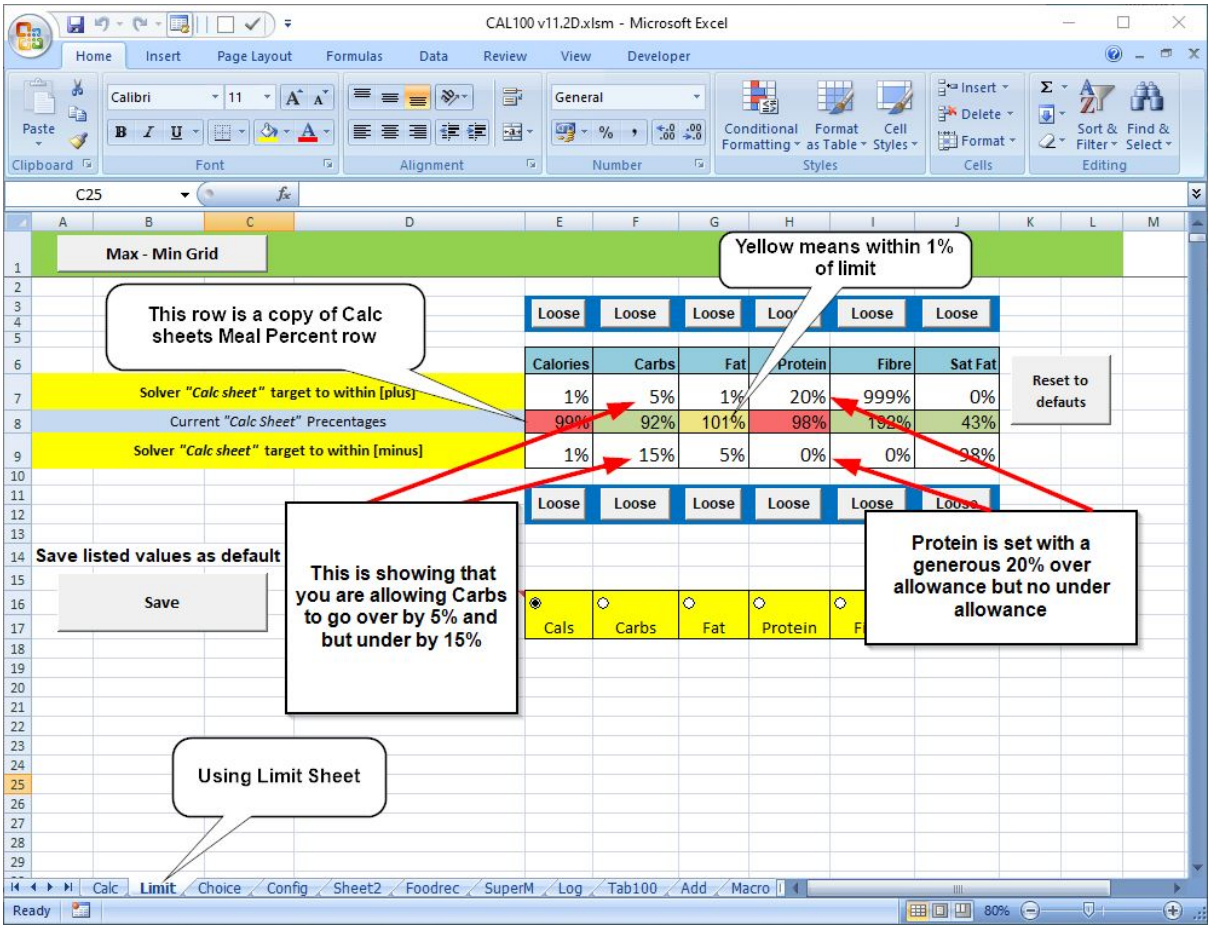
The upper part

These meal limits are used in partnership with the use of the *Calc* page. It is used often.

The lower part

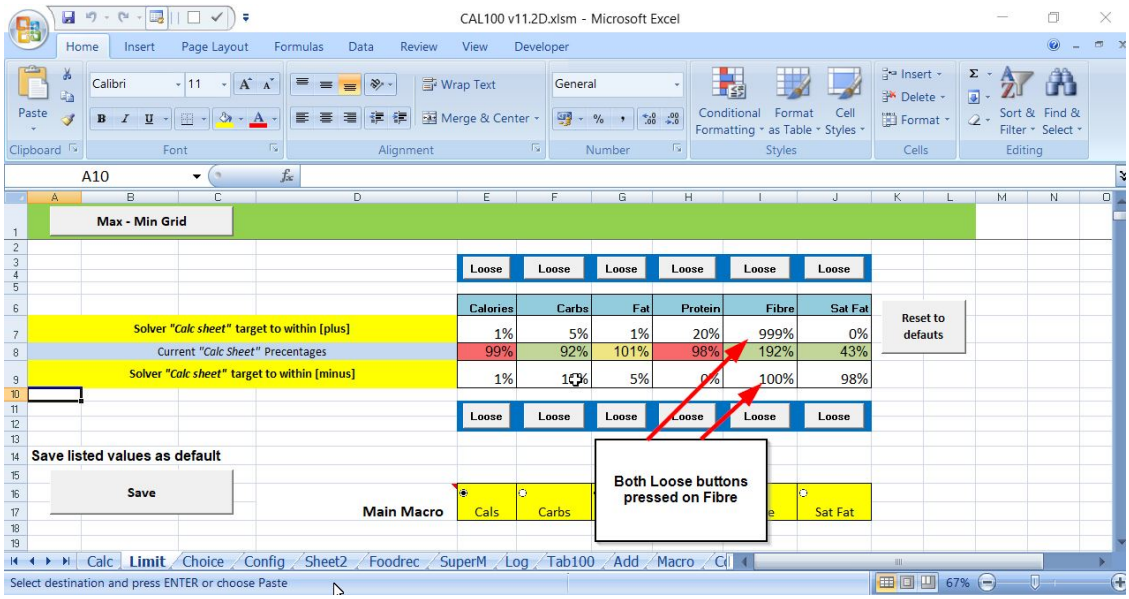
This option list is rarely altered. It is only changed when reconfiguring CAL100 for a completely new diet plan strategy.

It alters how CAL100 focuses on a particular macro-nutrient to be its main priority. Calories are typically used in most diet plans; however low carb dieters should choose the Carbs option, and for high protein diet plans, the Protein option.



The *Limit* sheet duplicates the current **Meal Percent** line of the *Calc* sheet. In addition, it also shows the limits for the macros.

The buttons labelled “Loose” are used to quickly dismiss these values from a ratio calculation. It does this by changing the macros limit to 999% for over limit and 100% for under limit.



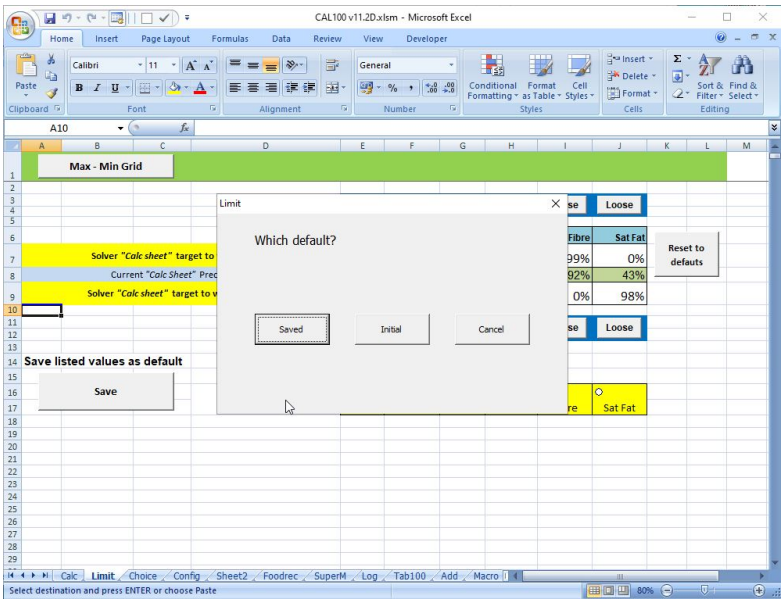
The USUAL SEQUENCE of EVENTS in meal planning.

(#set four)

This is the interesting part to CAL100. The skills needed are not too dissimilar to a farmer instructing their sheepdog to round up a flock of sheep!

1) Load up some ingredient ideas for a meal on the *Calc* page.

2) Go to *Limits* page and click *Reset to defaults* button then *Initial* button.



3) Go back to the *Calc* sheet. Click on ***Solver Go*** for the first time.

4) Review a first run of ***Solver Go*** by checking the colour status of the **Meal Percent** line.

   NOTE: This information is also **duplicated** to the *Limit* page, so you can review the information on either page.

   Green meaning within range.

   Yellow indicates OK but within plus or minus 0.5% of a limit (both Max and Min)

   Red shows outside range.

There are a range of strategies to achieve target values on all macro-nutrients (I'm calling this the **goal** in the following description)

On the *Calc* Page

Calc Strategy 1)

If a portion amount has been set, remove it temporarily and rerun ***Solver Go*** to see what amount would achieve the goal.

E.g. if the result is 0.55 of a tin rather than one tin, then round to the nearest convenient size and re-enter such as 0.5 of a tin as the portion size.

Calc Strategy 2)

Add a new ingredient known to fix shortfalls. For example:

- Sultanas to fix a shortfall in Carbs.
- Sunflower Oil to fix a shortfall in fat.
- Skimmed Milk Powder to fix a shortfall in protein.

Use the sheet page*Tab100* to go through options similar to these.

Calc Strategy 3)

Fill *Calc* page with ingredients and tick all of them. Then run ***Solver Go***. It will pick the best ingredient to meet the goal.

Specify a small minimum amount on a preferred ingredient e.g. set to >1 to stop it being ignored.

Some amounts are too small to be viable, e.g. 2 grams of Garden Peas. Untick this ingredient and rerun ***Solver Go****.*

Using this strategy can give some unexpected meal ideas. One of my favourites is now Cauliflower crisp-bakes with Coleslaw and Sultanas.

On the *Limit* Page

Limit Strategy 1)

If you get a message of a failure to reach a goal, then briefly flick to the *Limit* page, check the copy of **Meal Percent** line for any macro that's stuck over range (maximum or minimum are both coloured in red), then decide whether to loosen a limit or leave alone.

Loosen ranges 5%-10% at a time (Don't do too many at once).

Then rerun ***Solver Go*** on *Calc* page.

Note: Loosen limits on macros you don't mind going over and leave the others tight. E.g. For me; Fibre can go way over (80% over). Saturated fat stays tight. Protein can go 20% over.

Limit Strategy 2)

Loosen all Limits except one (usually Calories). Click on all the *Loose* buttons except the main limit you are interested in.

Then rerun ***Solver Go*** on the *Calc* page.

This has the advantage of guaranteeing a successful all “Green” pass for all macros.

Return to the *Limit* page and start tying down the other macros one by one by typing in, for example, plus or minus 5% on a particular macro.

All this may sound complex, but as previously mentioned people who enjoy doing jigsaws will find this quite enjoyable.

********** Extra Information **********

Note 1) The **Initial** limit button is preset, but you can choose your own values by clicking **Save** button after setting the limit percentages.

Note 2) Some values may seem to match their limits, but because decimal points are not shown, are very slightly over limit and are shown in Red.

Note 3) ***Solver Go*** reports success or failure to reach targets with a message after being run.

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Some meals can take on a somewhat unusual blend of ingredients if you are aiming to match a day total for macro-nutrients.

For example, a breakfast may be only 2 gram in fibre but finally adds up to a day target of 26 gram with a 24 gram component added in lunch and dinner meals.

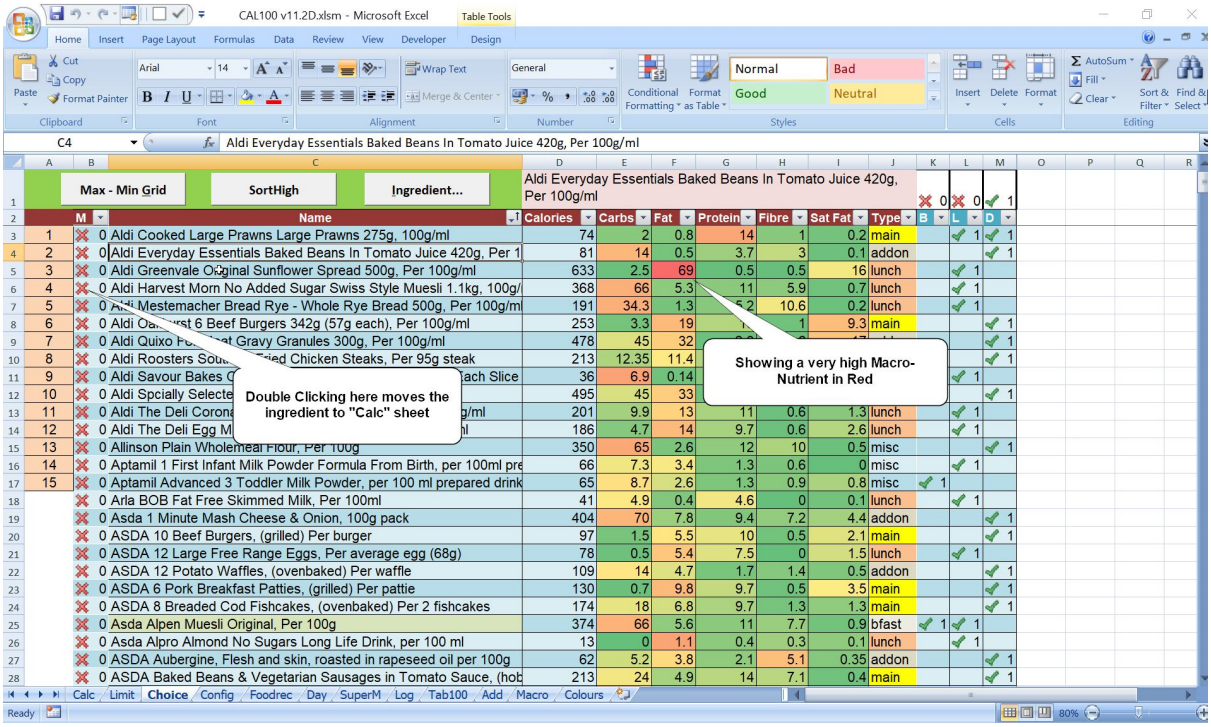
This “weighting” is part of setting up the *Config* sheet (which will be covered later).

It is useful practice to pick a really difficult ingredient, such as adding Rice with settings adjusted to a low carb diet and try to steer the programme to a working solution.

Default limits can be customised by setting limits then press *Save* button below the **Save listed values as default** title. This range will apply to all meals being set.

Pressing **Reset to defaults** button shows an option screen where you can choose a previous saved default or the programme’s first default setting.

THE CHOICE SHEET



The *Choice* page of the spreadsheet contains the ingredients that can make up your selected meal.

Click each of your options on the left hand side of the *Choice* sheet; up to 15 items can be selected. Your choices will be added to the *Calc* sheet.

********** Extra Information **********

To speed up data entry, unticking a selection on the *Choice* page will not remove that selection on the *Calc* page.

To make more room on the *Calc* page, either remove items by double clicking on a *Calc* sheet ingredient **name** or select *Reset Table* button on *Calc* sheet.

A selection can be added twice. This is useful when dealing with a basic fixed amount followed by a top-up amount. A tick/untick/tick will add twice.

****

Each ingredient is colour coded in a way that should highlight the high/low energy values of any macro. (see *Tab100* notes on colour coding)

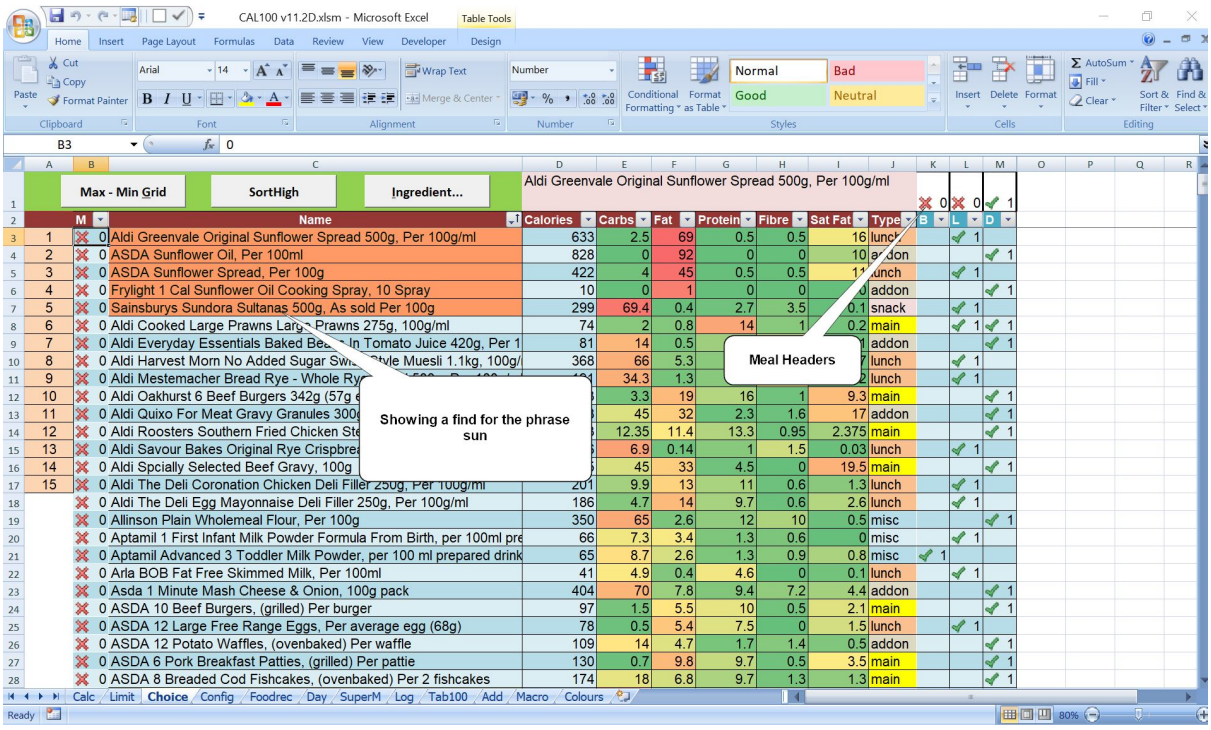
These colours can speed up the selection of choices for achieving a macro-nutrient target on the *Calc* sheet.

A reddish colour is an indicator for higher energy content items, mid-yellow for medium and grass-green for lowest. There are 100 graduations in this colour scheme.

The ***Type*** column is informational rather than strictly needed. It does speed up sorting when a large number of ingredients are stored.

By double-clicking, the following choices can be selected: "main", "addon", "snack", "lunch", "misc", "bfast", "sandw".

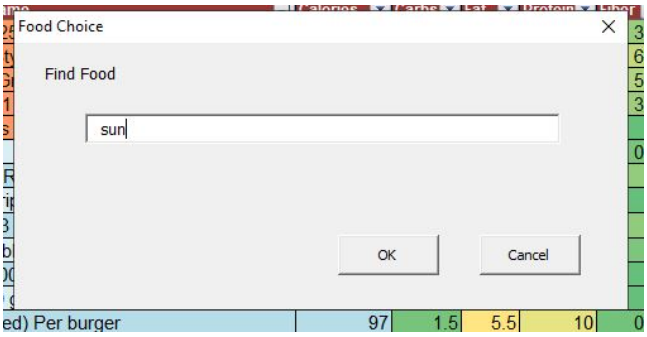
This column needs to be completed by you when new ingredients are added.



Likewise, the ***Meal headers*** column marked as **B L D** are informational. The tick boxes below these headings allow sorting of the ingredient choices by breakfast, lunch and dinner (then by *type*).

These sections should be filled in by you on adding new foods (if needed).

The ***Ingredient*** button is simple to use finder. In the example shown, the ***Ingredient*** button has been clicked (or use control-i) and the phrase *sun* has been typed.



This will find the phrase *sun* in any part of the ingredient name (including the middle of a word).

All ingredient names that match are listed.

The ingredients found are marked in orange. All remaining names are sorted in alphabetical order.

The standard Excel **find** option (using control-f) is still available if needed.

A shortcut key for *Ingredient find*: ***control-i*** is also available when using the *Calc* sheet to speed up switching between *Calc/Choice* sheets.

On the *Choice* page, you are free to colour names with your own colours for quick reference.

Ingredients can be removed by double clicking the name. A confirm box will appear.

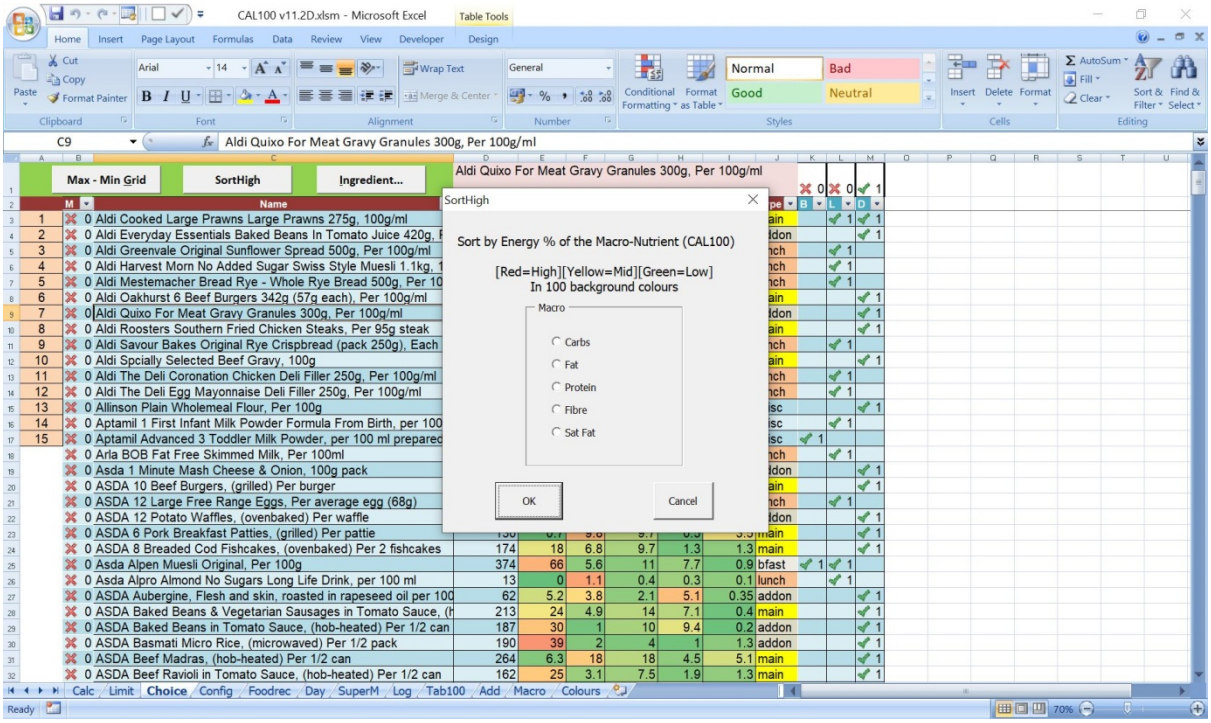
********** Extra Information **********

1) You can remove any added highlight colours by entering an unknown ingredient name, such as ABC on the *Choice* sheet.

2) You also use **Ctrl Q** to clear colours from the ***Name*** column. **Note** this resets All the *Name* colours to default.

****

The *SortHigh* button will also assist in choosing a suitable ingredient for a meal.

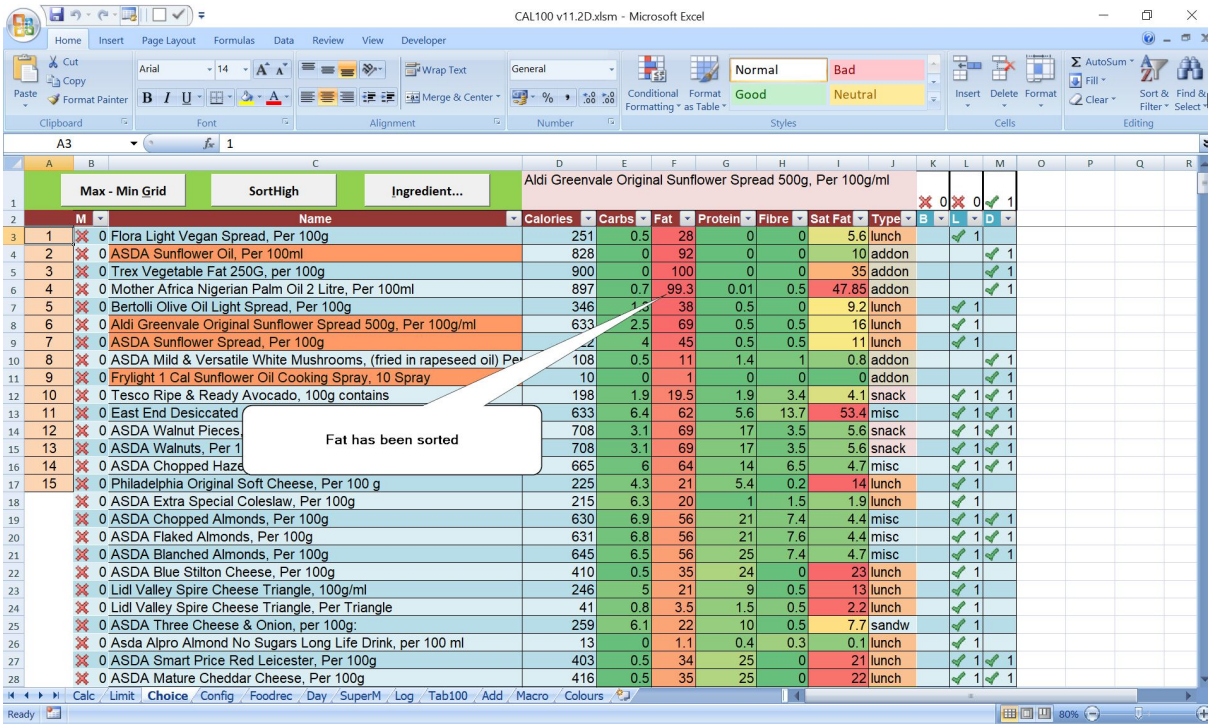


You can choose to sort the *Choice* list by any of the macros based on its energy percentage (**NOT** by weight).

An example result for fat is shown below.

HINT: The background colour best shows the energy content of that macro in an ingredient.

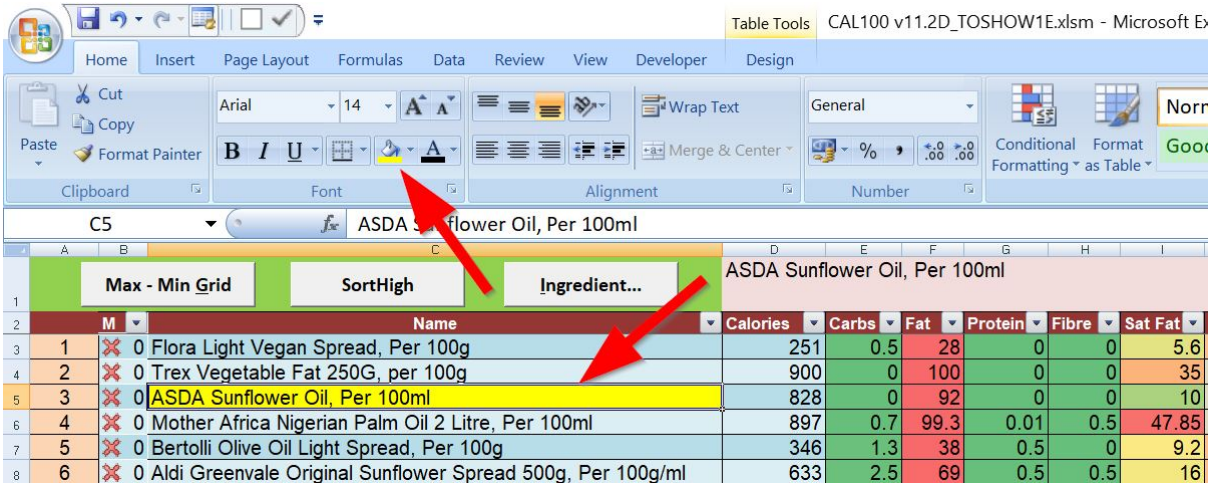
In isolation, the cell values themselves are of **limited use** (the weight), especially if the ingredient is a portion size or has a high water content.



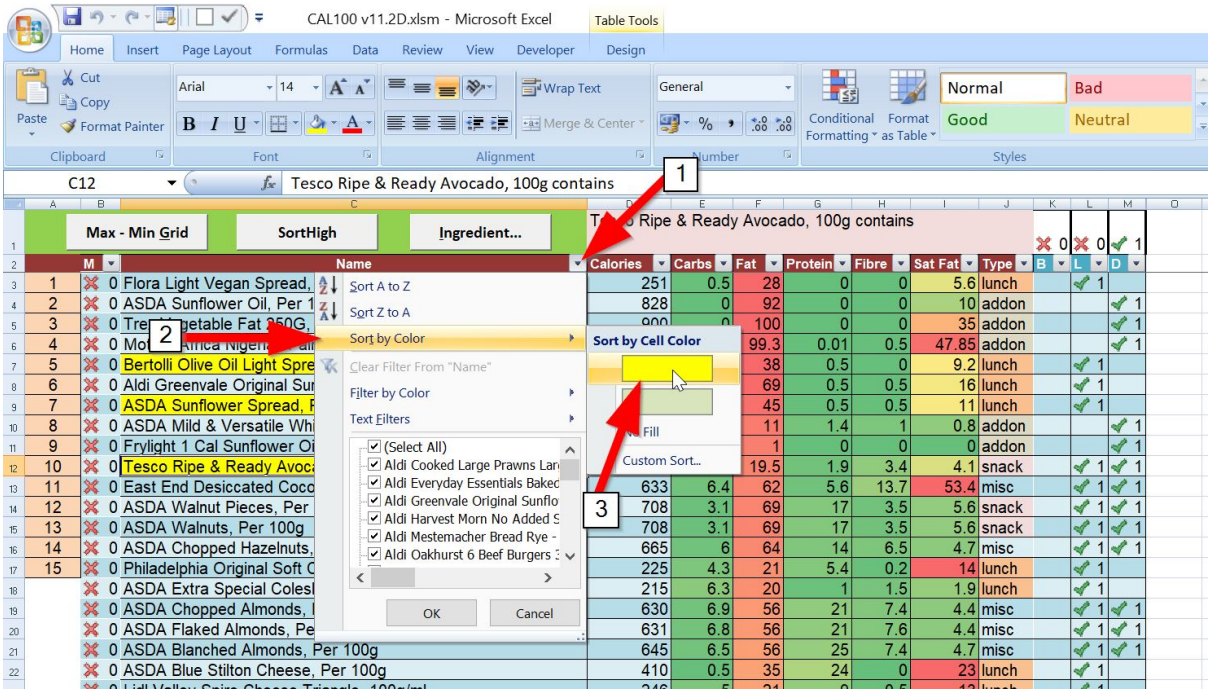
In the example shown, the last search (for sun) is still showing but is now reordered by fat energy %.

Notice the cell values (the macro's weight) in the column do not appear to have any order. A formula is needed to convert a macro weight to an energy value.

HINT: Make choosing faster by marking your ingredient **Names** with a suitable background colour.



Once names are coloured, you can sort them based on your chosen colour. Access this from the dropdown button on each column header.



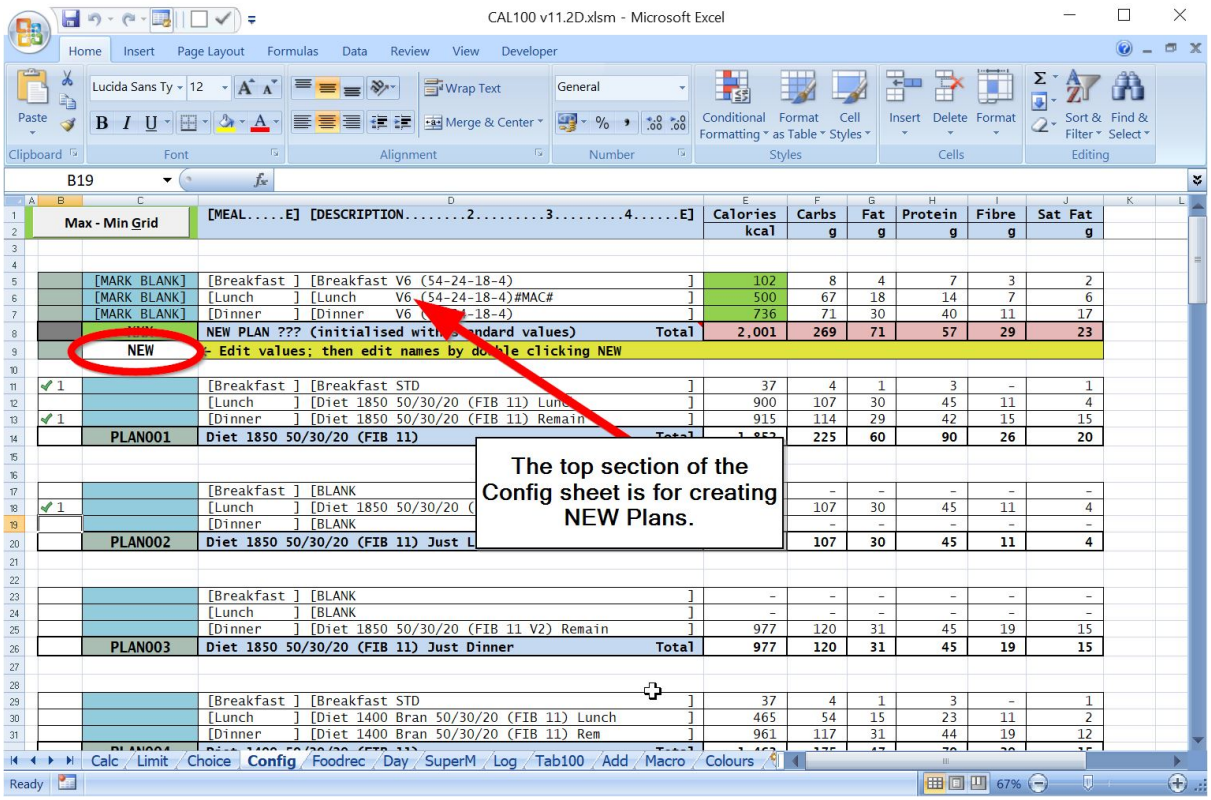
THE CONFIG PAGE

The *Config* page is a set of daily meal targets used by the *Calc* page.

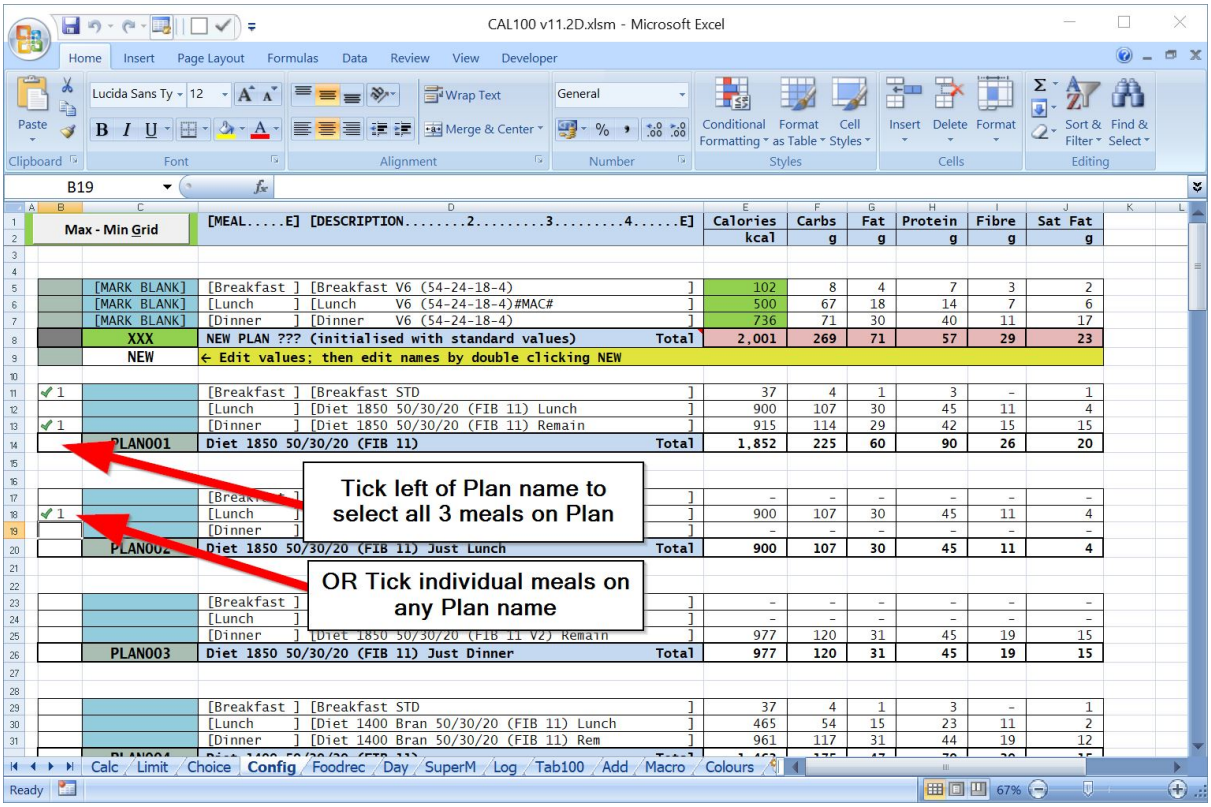
This page mainly consists of pre-prepared “**day plans**”.

The exception to this is a **NEW** entry option at the top of the page.

NEW PLAN

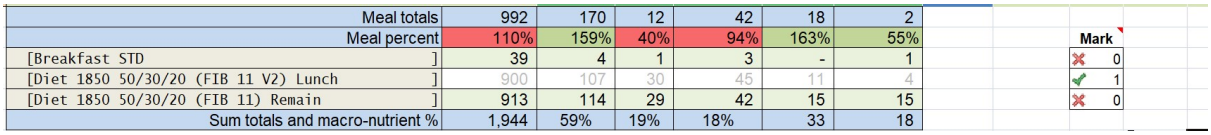


EXISTING PLANS



On existing plans, meals are ticked (with a double click) to select, and the meal line is then copied for use on the *Calc* sheet.

The three ticked meals then become the default setting of the *Calc* sheet. ↘



Note: On the *Calc* sheet; the correct meal selection may need altering after choosing a new plan. Also, run the *Calc* sheet's ***Solver Go*** button to refresh the shown values.

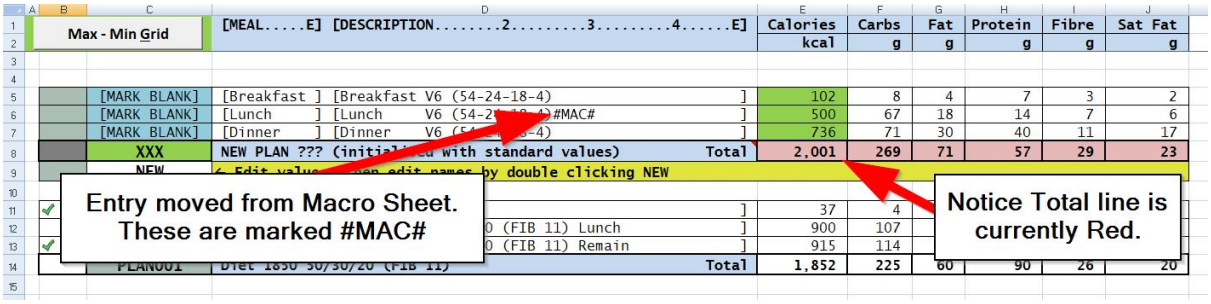
All three meals on a plan are usually selected (but not always). To select all three meals on a plan, click to the left of a plan name.

The NEW section

Building a NEW PLAN is typically made up from two main sources.

1st source) Using the “Calculators” found on the *Macro* sheet.

On completing a calculation; the values will be transferred to the NEW section using the buttons shown on the *Macro* sheet.



e.g. In this case, a lunch entry has been transferred. The moved entry is marked #MAC#

The previous meal **values** are overwritten in this NEW section if the *Macro* buttons are used.

The previous meal name **remains** however, as it is usually easier to amend an older name rather than start from scratch.

You will be editing and updating these names when all three meal values have been entered.

Using Macro buttons is usually the fastest and best way to get started with an initial PLAN.

2nd source)

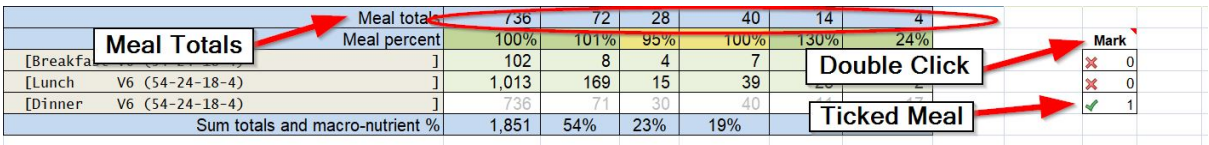
The second way can be found on the *Calc* sheet. On double clicking the word **Mark**, the Meal lines listed will be transferred to **NEW** section on the *Config* sheet.

This is mainly used to alter an existing PLAN with one revised meal entry.

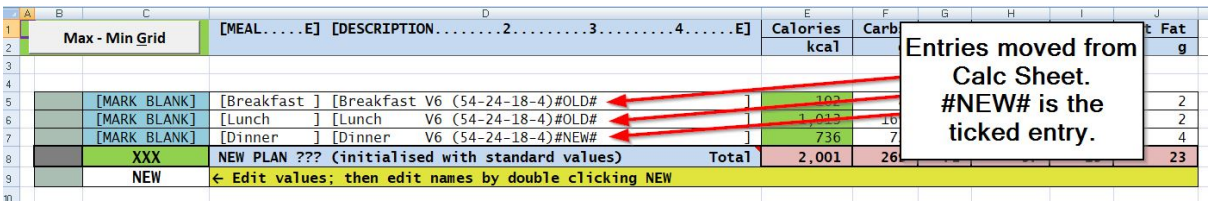
- The **values** listed on **Meal totals** line are transferred for **ticked** Meal entry.
- The other two **unticked** lines will have their values read from the line you see their name on.

Note: You will see on the screenshots below the meals are labelled v6; these meals originally came from v5 PLAN.

Calc Sheet



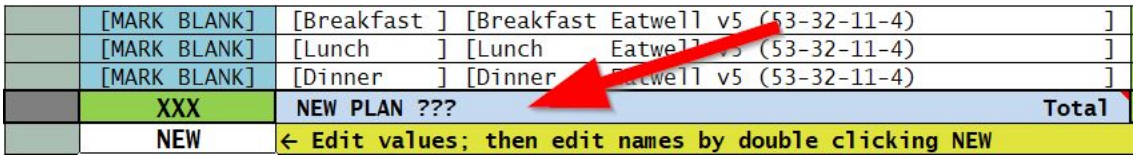
Config Sheet



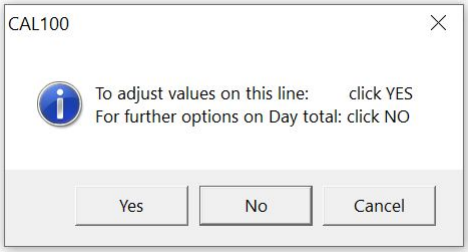
Once transferred, you can tell which was the altered ticked meal from the *Calc* sheet as this will be marked #NEW#. Likewise, the unticked meals are marked #OLD#.

Using this technique is particularly useful for tweaking a meal PLAN meal by meal, such as changing from Breakfast Cereal to Scrambled Eggs on Toast.

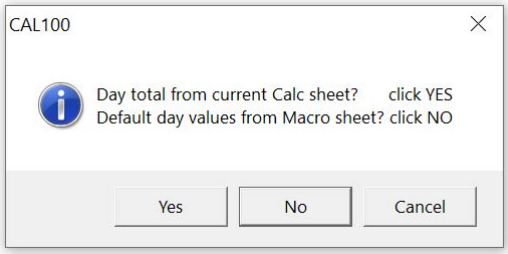
3rd source)



1)



2)



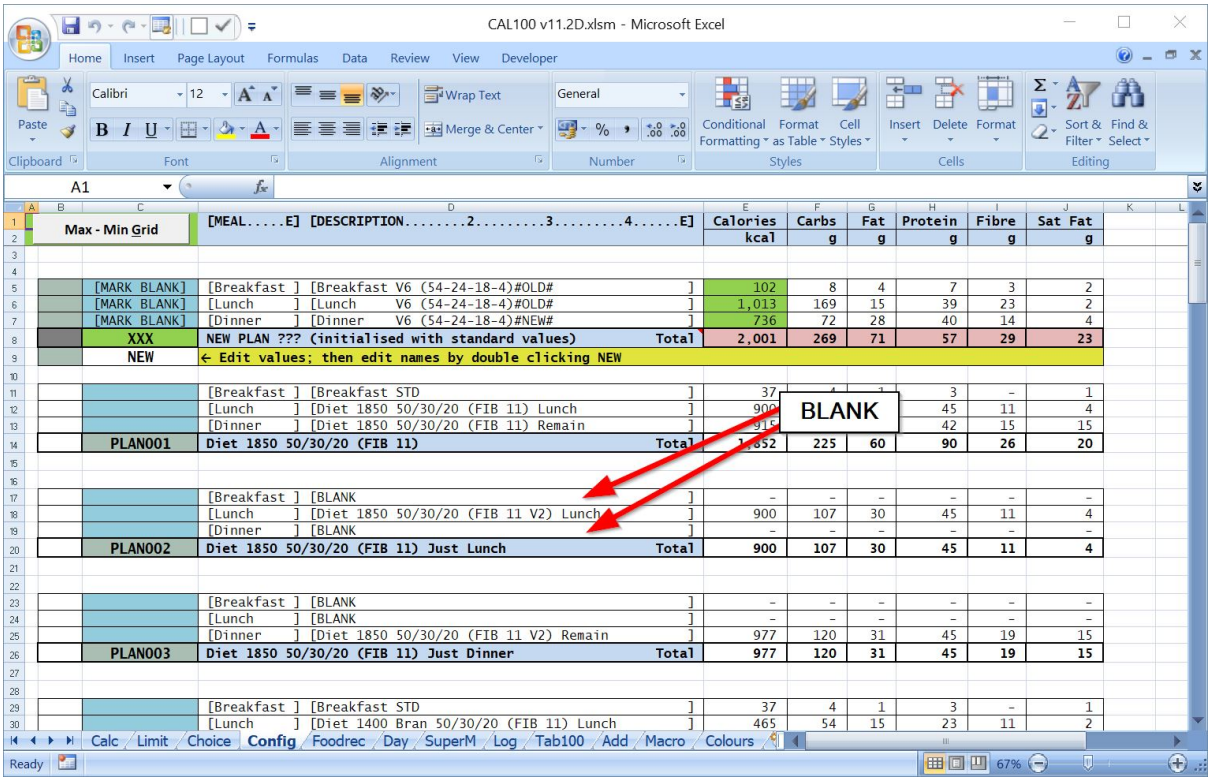
A double click on NEW PLAN line gives options on the first message to readjust the day values to match meal value totals or on the second message to pull the day info from either the *Calc* sheet or *Macro* sheet default day values.

Two other ways to edit

- A double click on the label **[MARK BLANK]** will name an entry as **[BLANK]** and initialise the line as a blank entry. This is useful when making up a PLAN with just one meal.
- **Manually.** The entire *Config* page can be manually edited (black text with a white background = can be edited). Also, PLAN names (blue background) can be edited.

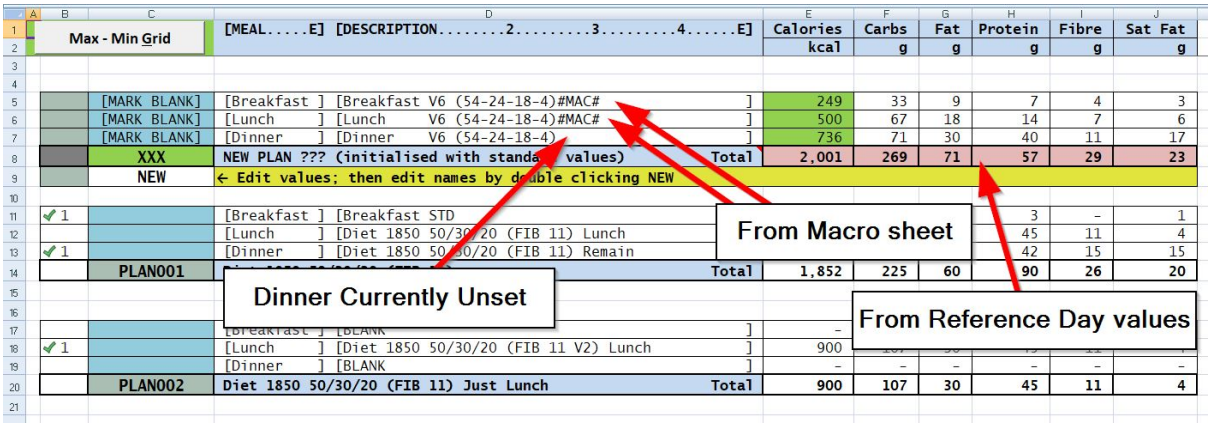
Note: Values are rounded to the nearest gram.

If any value is altered, the Calories for that line are re-calculated and updated. The Day totals for that PLAN are similarly updated.



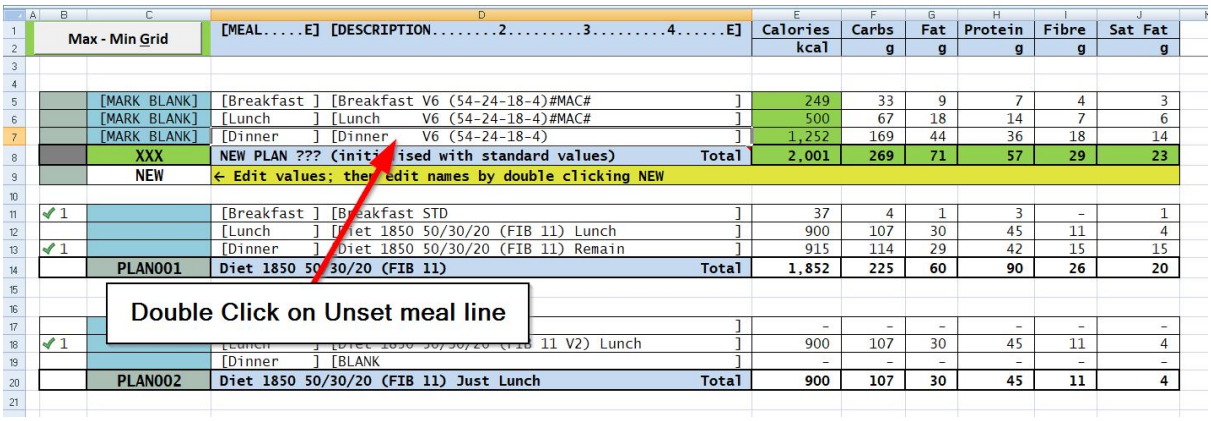
Example of a PLAN with 2 BLANK entries.

CREATING A NEW PLAN (#set third)



		[MEAL.....E] [DESCRIPTION.....2.....3.....4.....E]		Calories kcal	Carbs g	Fat g	Protein g	Fibre g	Sat Fat g
Max - Min Grid									
	[MARK BLANK]	[Breakfast] [Breakfast V6 (54-24-18-4)#MAC#	]	249	33	9	7	4	3
	[MARK BLANK]	[Lunch] [Lunch V6 (54-24-18-4)#MAC#	]	500	67	18	14	7	6
	[MARK BLANK]	[Dinner] [Dinner V6 (54-24-18-4)	]	736	71	30	40	11	17
	XXX	NEW PLAN ??? (initialised with standard values)	Total	2,001	269	71	57	29	23
	NEW	← Edit values; then edit names by double clicking NEW							
✔ 1		[Breakfast] [Breakfast STD	]				3	-	1
		[Lunch] [Diet 1850 50/30/20 (FIB 11) Lunch	]				45	11	4
✔ 1		[Dinner] [Diet 1850 50/30/20 (FIB 11) Remain	]				42	15	15
	PLAN001		Total	1,852	225	60	90	26	20
		[BLANK	]	-					
✔ 1		[Lunch] [Diet 1850 50/30/20 (FIB 11 V2) Lunch	]	900					
		[Dinner] [BLANK	]	-	-	-	-	-	-
	PLAN002	Diet 1850 50/30/20 (FIB 11) Just Lunch	Total	900	107	30	45	11	4

- In this example, the Breakfast and Lunch meal values came from the *Macro* sheet (marked #MAC#)
- The Dinner meal line has not been set yet.
- The Day totals are showing RED as the totals don't add up.



		[MEAL.....E] [DESCRIPTION.....2.....3.....4.....E]		Calories kcal	Carbs g	Fat g	Protein g	Fibre g	Sat Fat g
Max - Min Grid									
	[MARK BLANK]	[Breakfast] [Breakfast V6 (54-24-18-4)#MAC#	]	249	33	9	7	4	3
	[MARK BLANK]	[Lunch] [Lunch V6 (54-24-18-4)#MAC#	]	500	67	18	14	7	6
	[MARK BLANK]	[Dinner] [Dinner V6 (54-24-18-4)	]	1,252	169	44	36	18	14
	XXX	NEW PLAN ??? (initialised with standard values)	Total	2,001	269	71	57	29	23
	NEW	← Edit values; then edit names by double clicking NEW							
✔ 1		[Breakfast] [Breakfast STD	]	37	4	1	3	-	1
		[Lunch] [Diet 1850 50/30/20 (FIB 11) Lunch	]	900	107	30	45	11	4
✔ 1		[Dinner] [Diet 1850 50/30/20 (FIB 11) Remain	]	915	114	29	42	15	15
	PLAN001	Diet 1850 50/30/20 (FIB 11)	Total	1,852	225	60	90	26	20
		[BLANK	]	-	-	-	-	-	-
✔ 1		[Lunch] [Diet 1850 50/30/20 (FIB 11 V2) Lunch	]	900	107	30	45	11	4
		[Dinner] [BLANK	]	-	-	-	-	-	-
	PLAN002	Diet 1850 50/30/20 (FIB 11) Just Lunch	Total	900	107	30	45	11	4

- On double clicking on the unset meal name (Dinner). CAL100 adjusts the Dinner line values so meal totals now match the Day totals (which will now show in Green)

Significance of total line showing RED:

If the **total line** shows Red, the sums don't add up in that column.

You will need to decide:

- To alter one or more meal values so the Day totals correctly add up.

  OR

- Change Day total.

The CAL100 **"magic-totals"** feature will help you correct these changes.

BY:

- Double click on a **Meal** row name = That line's values will adjust so (with the other 2 meals) they add up to the Day total.
- Double click on a **Day total** row name = The Day total values will adjust to the 3 meal values.
- If a line of values is missing, double click on the **Row** name, and the correct values will be filled in.

A **NEW** plan is created mainly by an import of meal rows from either the *Calc* sheet or *Macro* sheet.

As described previously:

Imports from the *Calc* sheet are used when **amending** an existing plan.

Imports from the *Macro* sheet are used when **creating** a new plan from scratch.

You have probably decided on your initial ranges based on your diet aims, so you will use the *Macro* sheet initially to load values into the **NEW** plan.

(see details later for *Macro* page information).

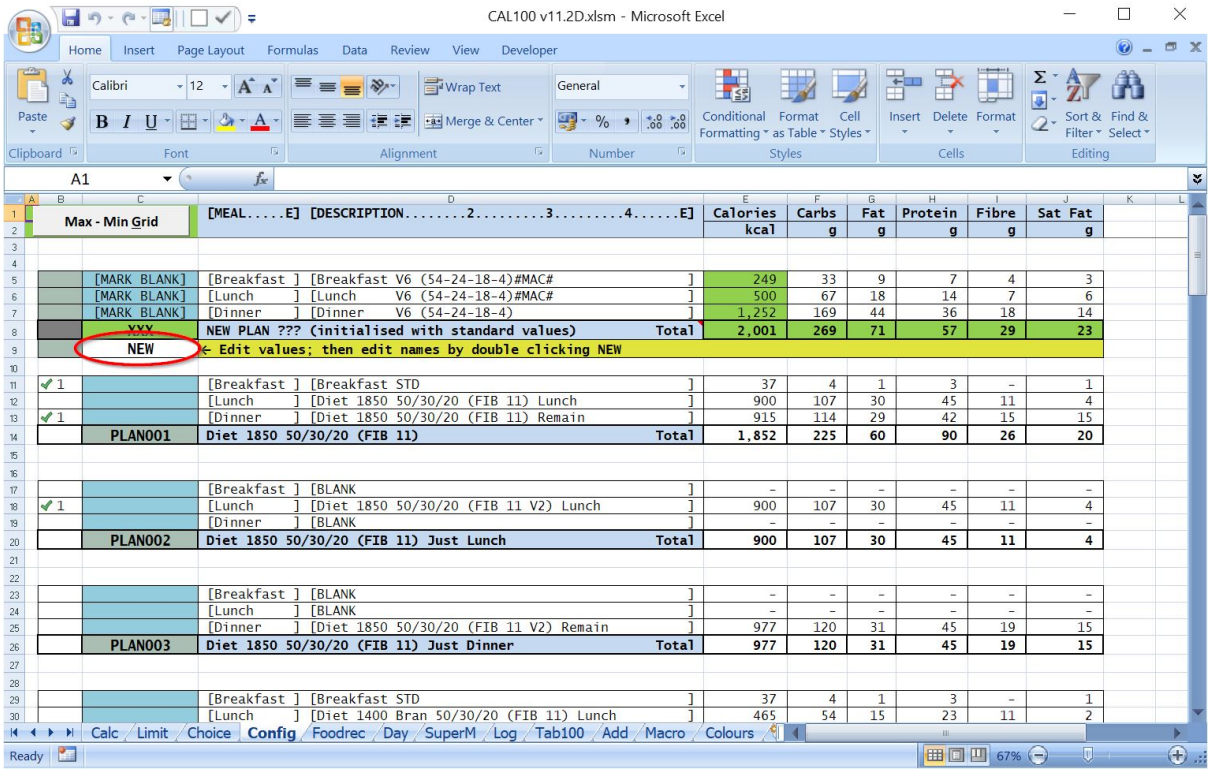
The *Config* page has a number of features to help ensure accurate totals.

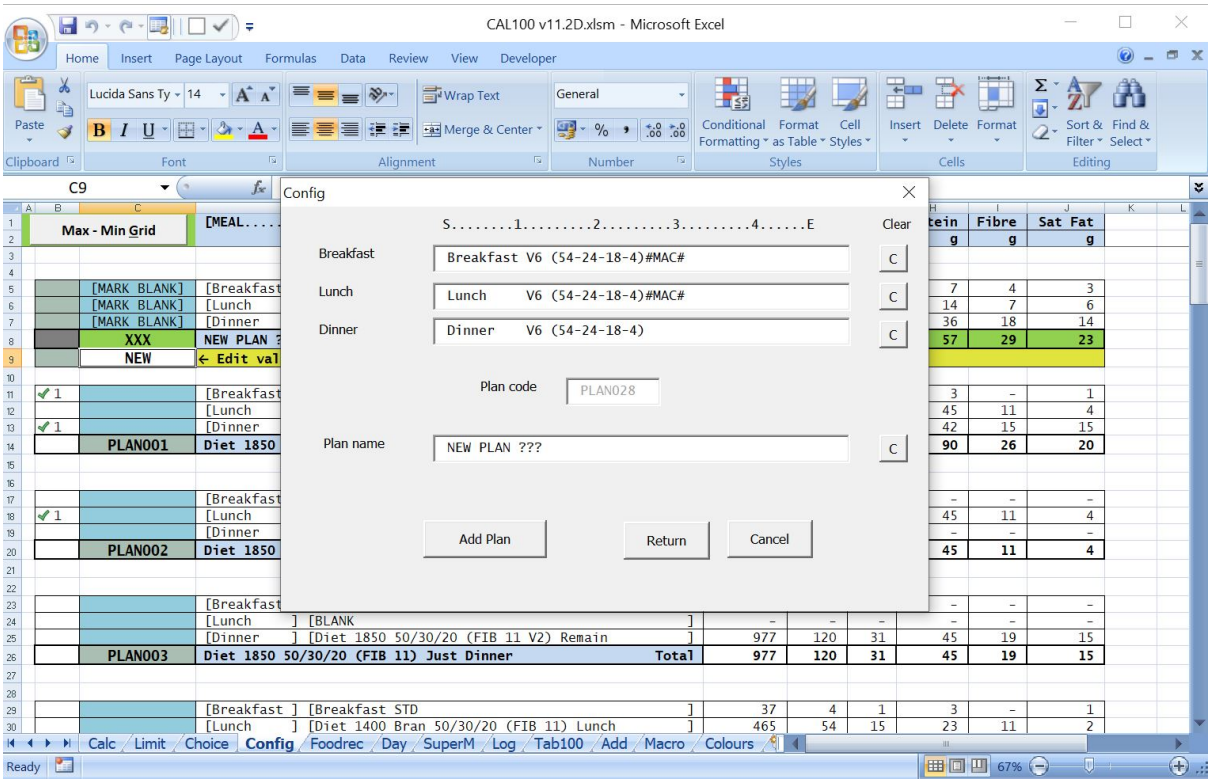
On accessing the *Config* page, the **Default day values** line is copied from the *Macro* sheet and is added to **NEW** plan.

This default is something set up at the time of a new install of CAL100 (See *Macro* Sheet for how this is set)

After correcting values:

Move on to editing plan names once the values are dealt with. This is done by double click on the word **NEW;** a popup form will appear**.**





A popup form will appear and show previously used names; re-edit these to create your chosen new meal names. The **C** button to the right is used to clear an existing name.

Notes:

- You cannot leave the tags; #MAC#, #NEW#, #OLD# in a name. You will be asked to remove these on saving.

- You cannot duplicate an existing meal name if the **values** on the other plan's meal name **do not** match.

- In the case of using **BLANK** as a name, this can be used so long as all the **values** are 0.

If needed, leave a date or version number in the name.

Note: This could be important in deciding how long a meal's PLAN has been in use, as manufacturers will occasionally alter the composition of ingredients.

********* Extra Information **********

Meal names are restricted to 47 characters; a character count guide is shown. Names must also be unique. You will be prompted if a duplicate is found.

- A new PLAN<number> is calculated automatically.
- A PLAN **name** is your description for this plan.
- Return button = Close popup and alter existing NEW plan names.
- Cancel button = Close popup without altering existing NEW plan names.
- Add Plan button = Add Plan to *Config* sheet (bottom of sheet)

****

(Perhaps a Coffee to think about all of this may be helpful).

********* Extra Information 2 **********

Minor editing of PLANS is possible without creating NEW plans. Just bear in mind that some of these existing plans may be referred to in the *Foodrec* meal library. (so values will become out of date)

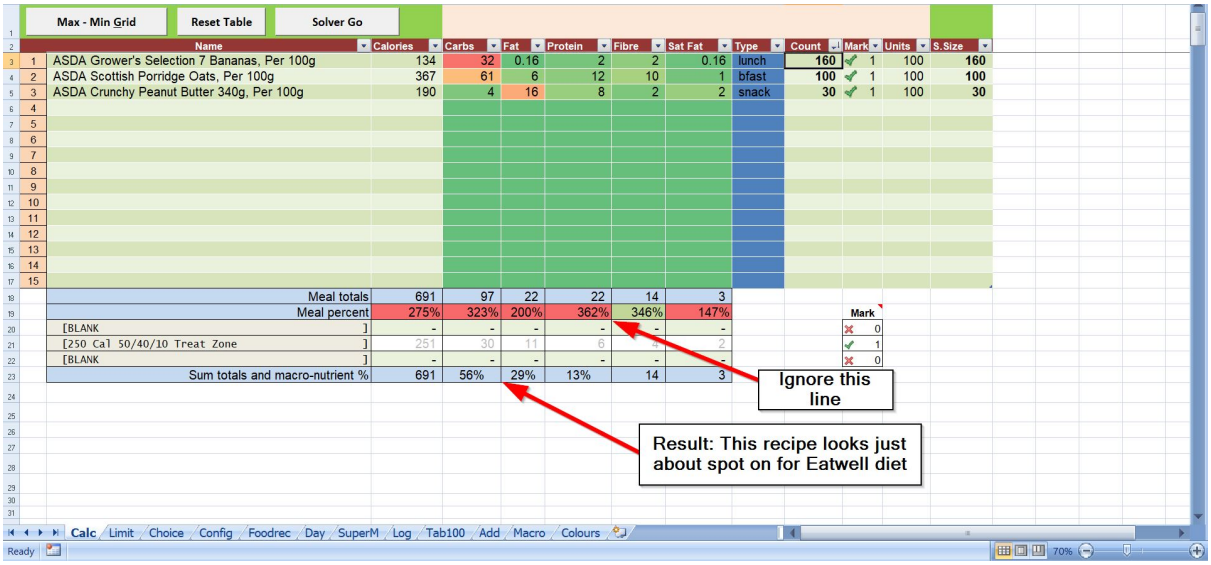
********* Extra Information 3 **********

Occasionally, you may want to check a published recipe to see if it suits your current target.

This example was published in a UK daily newspaper as a healthy snack by a nutritionist with an NHS advisory role.

TO TEST: choose one of your plans with just one meal and two BLANK entries for a Day Plan (target values not important)

Return to *Calc sheet* and enter the recipe (with fixed Server Size amounts).



In this case, this snack idea does indeed approximately match the Eatwell range (NHS UK) of 58-31-11.

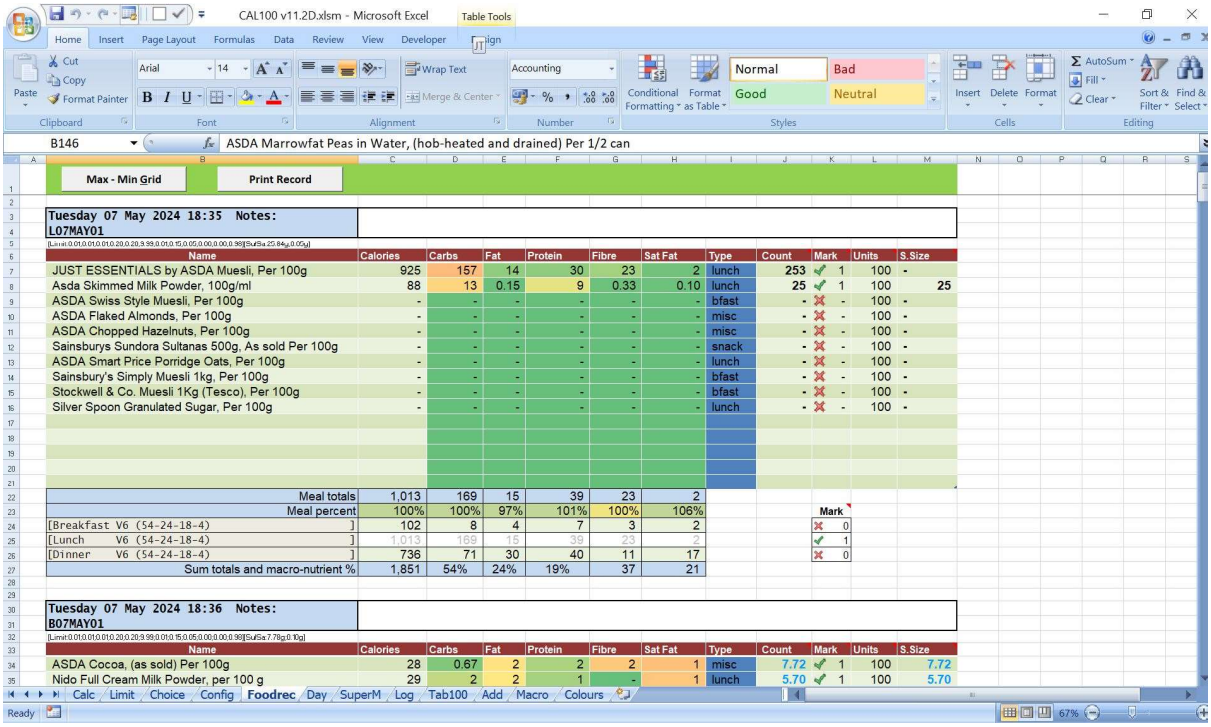
****

THE FOODREC SHEET

A somewhat unusual feature of this programme is how meal records are stored. These records are stored in full in the *Foodrec* sheet and in a format which makes printing easy.

It is a “storage” and “library” page for *Calc* sheet results with the addition of a **Notes header.**

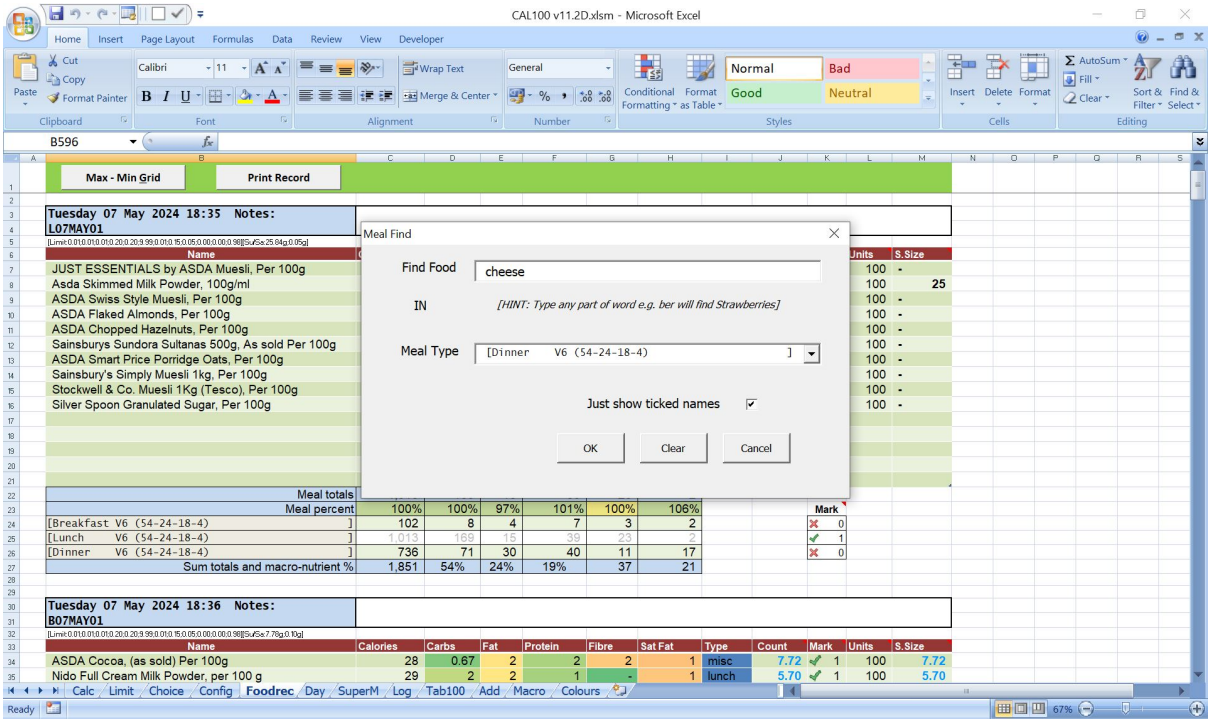
 You should avoid changing or editing any section apart from the **Notes:** section.



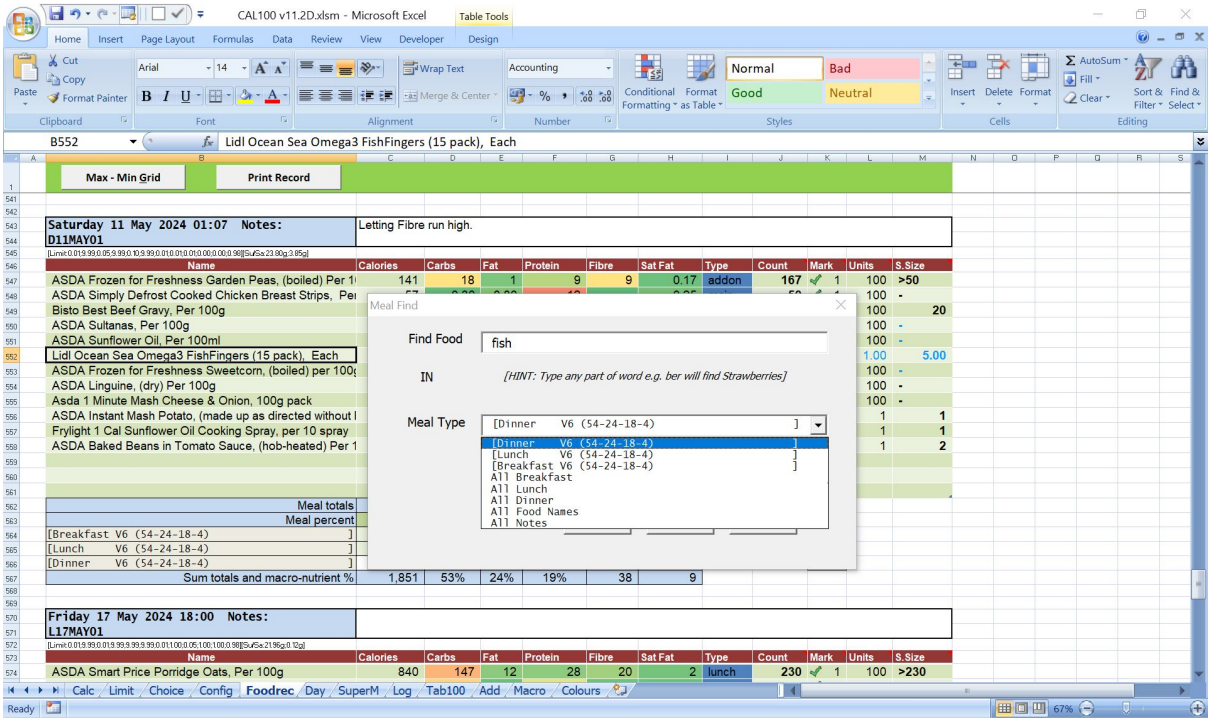
Saving records begins by pressing **Ctrl p** on the *Calc* page. The record is then added to this page. After adding, edit notes as appropriate.

To move a record back to the *Calc* page, select any cell where ingredient **names** are listed and press **Ctrl b**

You can search Foodrec page (from **<u>any</u>** page) using **Ctrl m.**



A list of search options is presented with current *Calc* page settings shown first.



Food name searches just require a part of a name, eg **ber** will find straw**ber**ries. If you do not put any name in, the search will advance to each record of that **Meal** Type (starting at the newest record and working back).

********** Extra Information 1 **********

Note 1) Searches of all the *Foodrec* pages are in reverse date order (Latest first)

Note 2) A search without any search text will locate each record with the PLAN name.

Note 3) A record can be deleted by clicking anywhere where an **ingredient name** is listed and pressing **Ctrl w.** A prompt will confirm.

****

********** Extra Information 2 **********

There are a number of advantages to using this format for storage.

- There is no separate data file from the one in *Foodrec*. Changes made are similar to altering a document.

- Because of this format, making backups are fast and straightforward as only dealing with one small file.

- Amendments are also more straightforward and can be done without the need for computer technical staff.

- Using one small file means the programme can be carried on a USB stick and should work on public facility computers such as in libraries and colleges with standard Excel installed.

- No internet is needed if no ingredients need adding.

- Searching for the next record is timed at <1/100 second.

- Printing (or via PDF print to a USB stick) is easily possible and still possible when an internet connection is not available.

- “Copy and paste” of Day records into Microsoft Word or PowerPoint is the same as working with documents. (Day records copied into Microsoft Word / PowerPoint are best made using the paste sub-option “paste as picture”.)

- Ingredient records and searches can contain non-English characters, including iconic written language scripts such as Chinese.

- Ingredient searches are set up to be character case insensitive.

This format has been found suitable for up to about 750 records, which is equivalent to adding about 1 meal a day for 2 years.

This could be extended to about 5 years of records if auto-calculation of print page breaks were disabled.

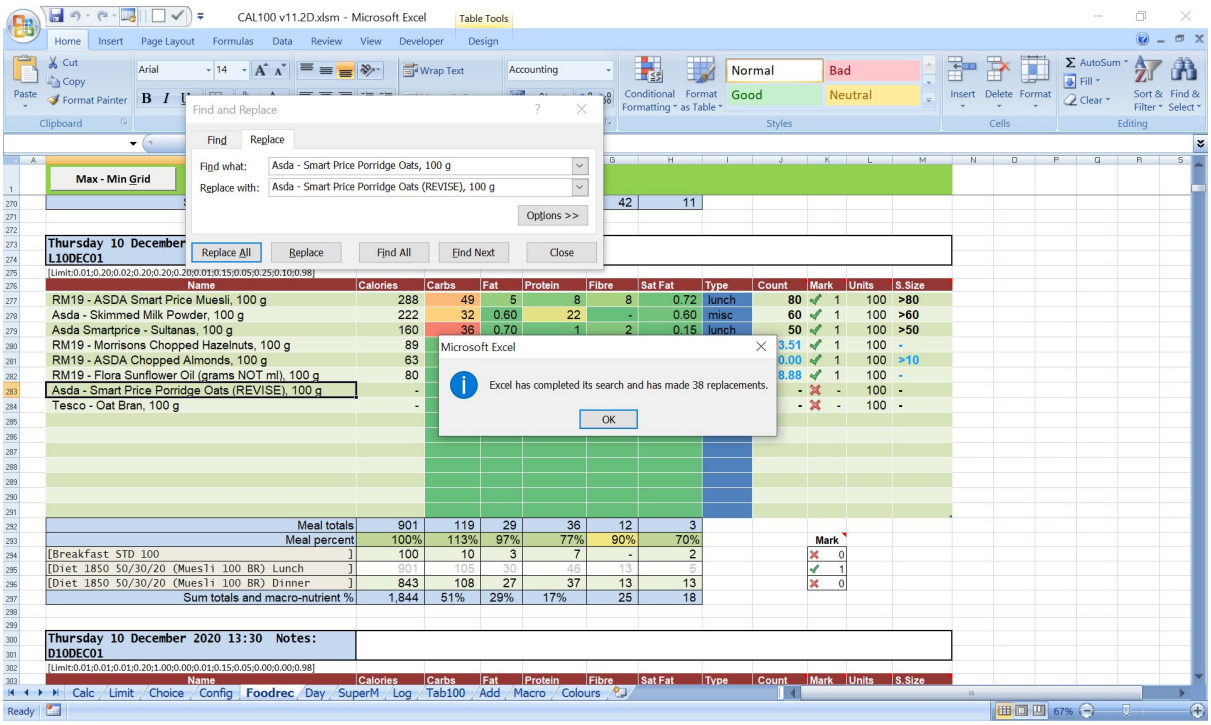
IMPORTANT: Regard older records over a year old with **caution,** as ingredient compositions may have changed.

Lots of backups and a clearout every year is advised.

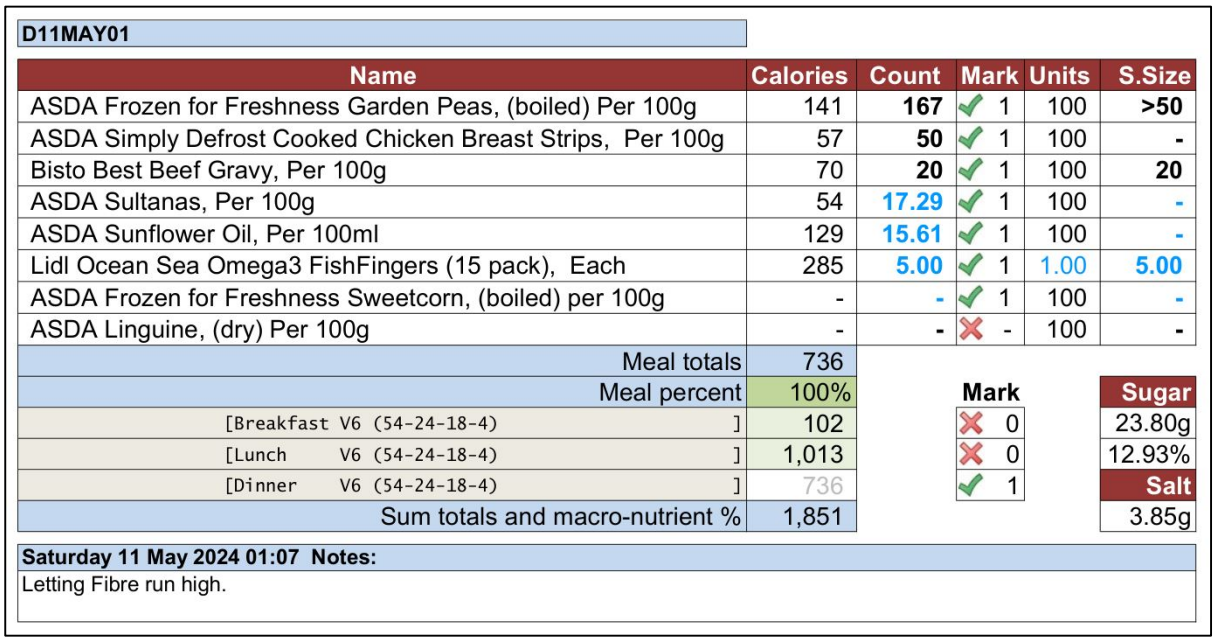
********** Extra Information 3 **********

There is one exception to editing the values of the Non-Notes sections of the *Foodrec* sheet.

On occasion, you will find the composition of ingredients has changed. In this case, it is advisable to mark the Foodrec meal entries as shown below by using the Excel Cntl H key (Replace). This will prompt later use of the meal to be updated. Adding the word (REVISE) is used in this example. [To be used only on *Foodrec* sheet]



A Print option button at the top of the Foodrec sheet will allow you to print individual meal entries. (#printone)



D11MAY01

Name	Calories	Count	Mark	Units	S.Size
ASDA Frozen for Freshness Garden Peas, (boiled) Per 100g	141	**167**	✓ 1	100	**>50**
ASDA Simply Defrost Cooked Chicken Breast Strips, Per 100g	57	**50**	✓ 1	100	**-**
Bisto Best Beef Gravy, Per 100g	70	**20**	✓ 1	100	**20**
ASDA Sultanas, Per 100g	54	**17.29**	✓ 1	100	**-**
ASDA Sunflower Oil, Per 100ml	129	**15.61**	✓ 1	100	**-**
Lidl Ocean Sea Omega3 FishFingers (15 pack), Each	285	**5.00**	✓ 1	1.00	**5.00**
ASDA Frozen for Freshness Sweetcorn, (boiled) per 100g	-	**-**	✓ 1	100	**-**
ASDA Linguine, (dry) Per 100g	-	**-**	✗ -	100	**-**
Meal totals	736				
Meal percent	100%				
[Breakfast V6 (54-24-18-4)]	102				
[Lunch V6 (54-24-18-4)]	1,013				
[Dinner V6 (54-24-18-4)]	736				
Sum totals and macro-nutrient %	1,851				

Mark	Sugar
✗ 0	23.80g
✗ 0	12.93%
✓ 1	Salt
	3.85g

Saturday 11 May 2024 01:07 Notes:

Letting Fibre run high.

This feature is useful for building up a ring binder collection of meal entries for use in a kitchen environment. The printing size is aimed at using A5 / Half Letter (USA / Canada) plastic sleeves to store these.

To select a meal to print, select a cell on any name in the meal and press the Print button.

********** Extra Information **********

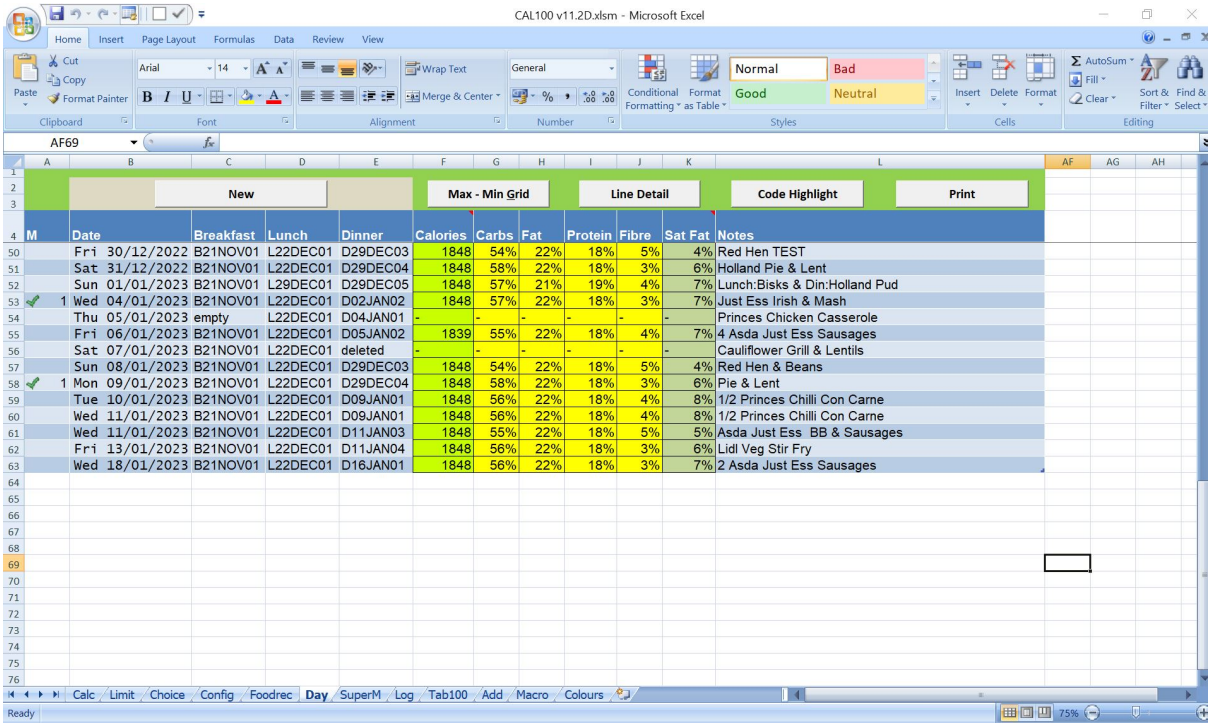
Note 1) The meal printout leaves out some meal columns, so a larger text could be used.

Note 2) If printing to PDF, the Microsoft Print to PDF works well.

Note 3) If wanting to print at Half Letter size but is not available, then choose Statement size.

****

THE DAY SHEET



M	Date	Breakfast	Lunch	Dinner	Calories	Carbs	Fat	Protein	Fibre	Sat Fat	Notes
	Fri 30/12/2022	B21NOV01	L22DEC01	D29DEC03	1848	54%	22%	18%	5%	4%	Red Hen TEST
	Sat 31/12/2022	B21NOV01	L22DEC01	D29DEC04	1848	58%	22%	18%	3%	6%	Holland Pie & Lent
	Sun 01/01/2023	B21NOV01	L29DEC01	D29DEC05	1848	57%	21%	19%	4%	7%	Lunch:Bisks & Din:Holland Pud
1	Wed 04/01/2023	B21NOV01	L22DEC01	D02JAN02	1848	57%	22%	18%	3%	7%	Just Ess Irish & Mash
	Thu 05/01/2023	empty	L22DEC01	D04JAN01	-	-	-	-	-	-	Princes Chicken Casserole
	Fri 06/01/2023	B21NOV01	L22DEC01	D05JAN02	1839	55%	22%	18%	4%	7%	4 Asda Just Ess Sausages
	Sat 07/01/2023	B21NOV01	L22DEC01	deleted	-	-	-	-	-	-	Cauliflower Grill & Lentils
	Sun 08/01/2023	B21NOV01	L22DEC01	D29DEC03	1848	54%	22%	18%	5%	4%	Red Hen & Beans
1	Mon 09/01/2023	B21NOV01	L22DEC01	D29DEC04	1848	58%	22%	18%	3%	6%	Pie & Lent
	Tue 10/01/2023	B21NOV01	L22DEC01	D09JAN01	1848	56%	22%	18%	4%	8%	1/2 Princes Chilli Con Carne
	Wed 11/01/2023	B21NOV01	L22DEC01	D09JAN01	1848	56%	22%	18%	4%	8%	1/2 Princes Chilli Con Carne
	Wed 11/01/2023	B21NOV01	L22DEC01	D11JAN03	1848	55%	22%	18%	5%	5%	Asda Just Ess BB & Sausages
	Fri 13/01/2023	B21NOV01	L22DEC01	D11JAN04	1848	56%	22%	18%	3%	6%	Lidl Veg Stir Fry
	Wed 18/01/2023	B21NOV01	L22DEC01	D16JAN01	1848	56%	22%	18%	3%	7%	2 Asda Just Ess Sausages

Apart from an occasional “peek” at previous meal plans, for most people, just having a summary of previous meals is all that is needed.

The *Day* sheet complements this and completes the meal planning “jigsaw” by using the *Foodrec* sheet as a library. With the lookup tools available in *Day* sheet, it acts as a librarian to your meal lists.

Its format reflects a change from just showing the energy of three main macro-nutrients of carbs, fat and protein to four by also including fibre.

This change is particularly useful as it allows users to easily differentiate between EU (also UK, Norway) material, which CAL100 uses and three macro-nutrient sourced material, which is mainly found on USA websites.

********** Extra Information **********

- The calculators found on the *Macro* sheet are designed to allow users to adapt and convert from a three to a four macro-nutrient based scale.

- For people used to the three macro-nutrient format; the addition (using mental arithmetic) of the listed fibre energy percentage to the carb percentage will give the answer expected.

****

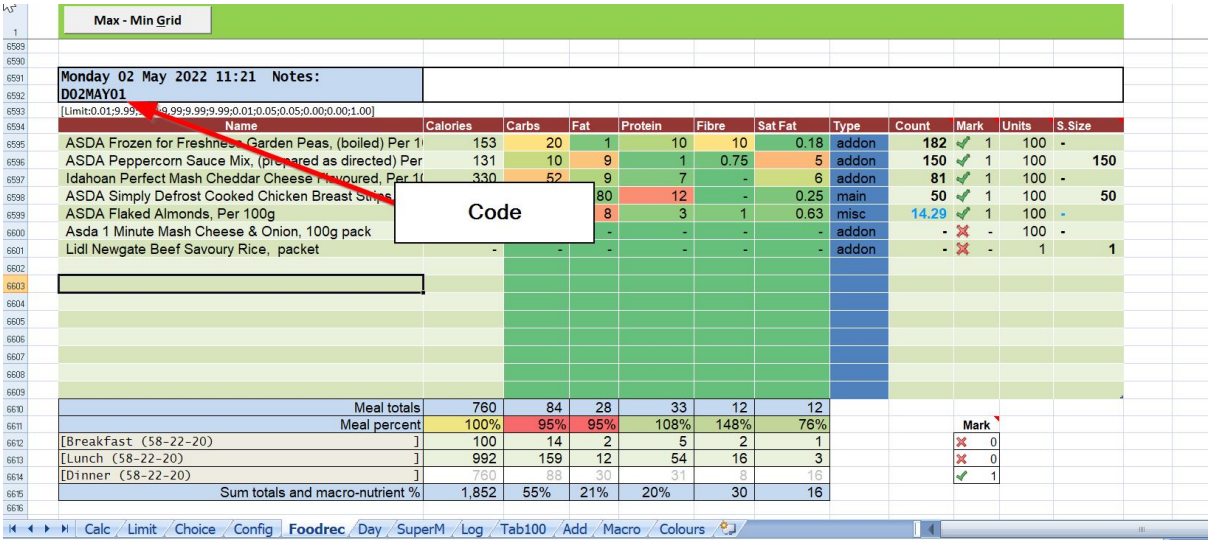
The *Day* sheet also gives you options to print one or more of the meal day lists.

This sheet uses “codes” as shortcuts for each meal. The three meal entries then make up a complete day’s listing.

A day’s totals then follow; these are matched to your target settings (in percent) compared to the **Default Day Values** found at the top of the *Macro* sheet (located in cells D3 to I3)

The “Summary Codes” used on the *Day* sheet are hopefully an easy to remember coding system.

These codes are created when a meal on *Calc* sheet is saved to the *Foodrec* sheet (by pressing Cntl p)



For example: **B16SEP01**

The **B** refers to a meal that is normally a Breakfast (i.e. the first of the three names listed at the bottom of the *Calc* sheet).

This is followed by a short date and, finally, a two digit number. The 01 in the example is the first breakfast for that date.

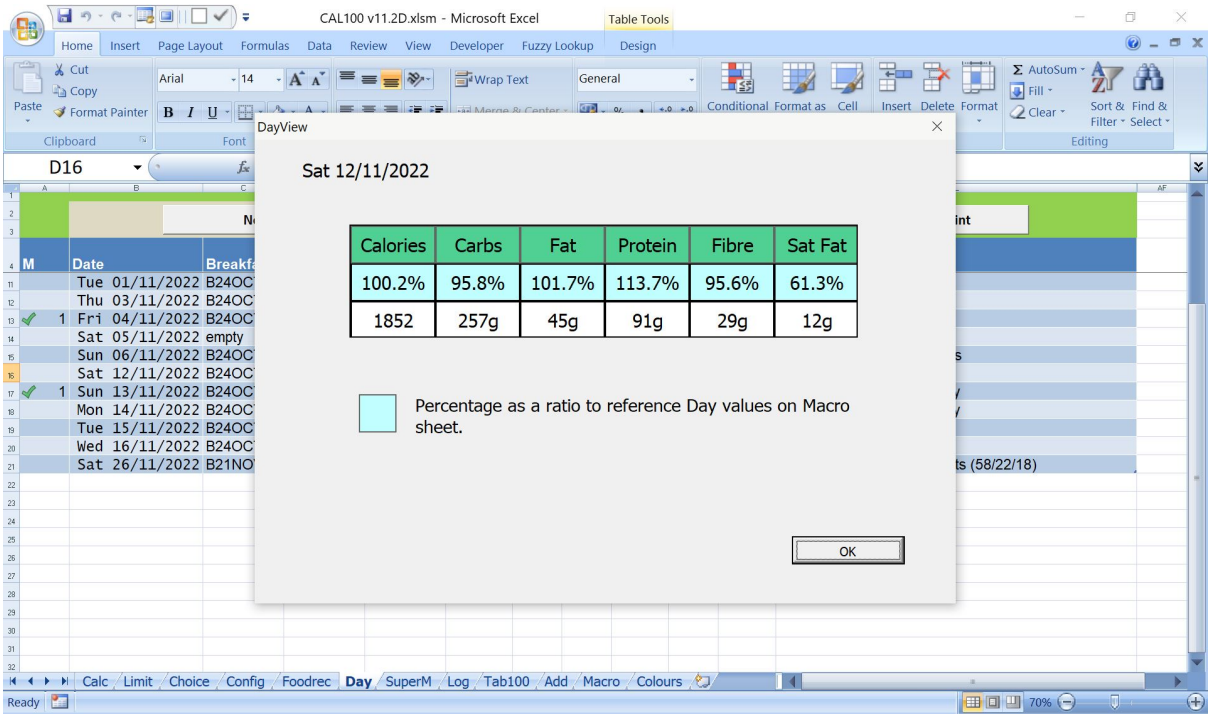
You will see two other start codes are also used: **L** for Lunch, **D** for Dinner.

The codes are checked and updated when needed; for example, when a record is deleted (using Cntl W) on the *Foodrec* sheet, codes with the same meal type and matching date are updated.

For example, if D15AUG02 is deleted, then D15AUG03 becomes D15AUG02 and any reference to the **old** D15AUG02 on the *Day* sheet will say **deleted.**

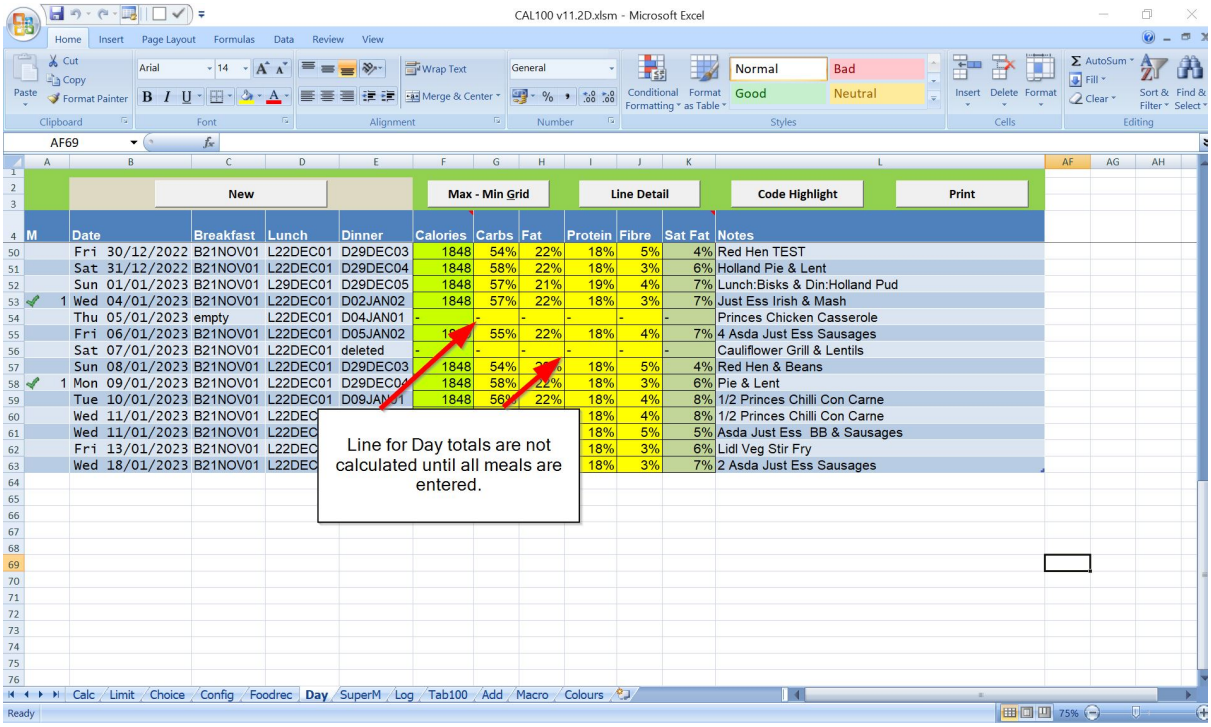
The coding system has been designed for future features to work, such as merging **Foodrec** records from other CAL100 spreadsheets.

An alternative viewing format of a Day record can also be accessed by pressing the **Line Detail** button on the line you are interested in.



********** Extra Information **********

Day rows:



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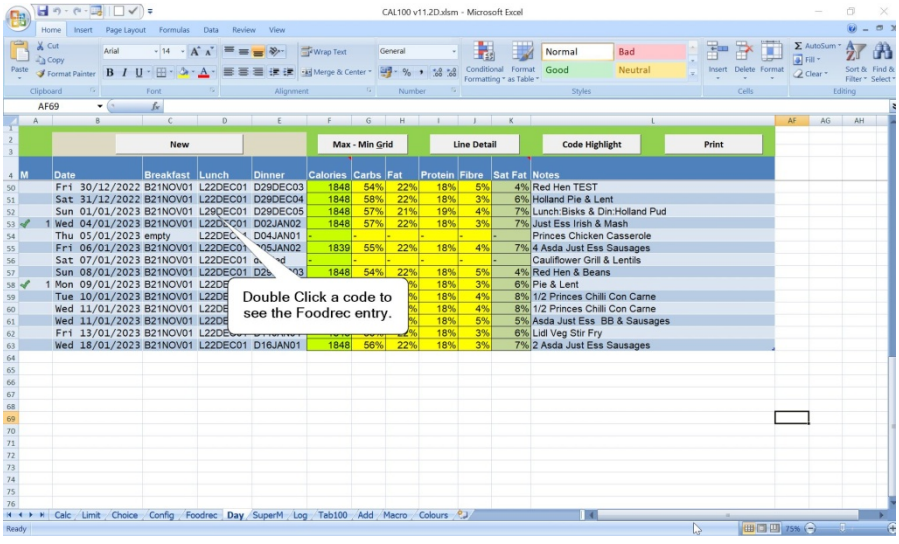
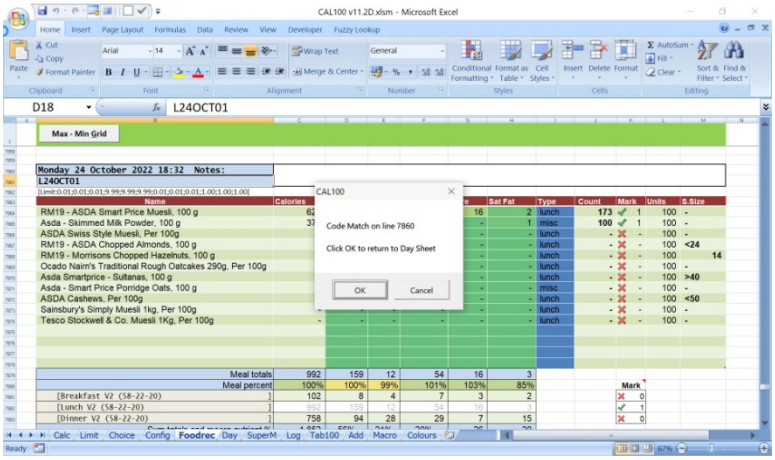
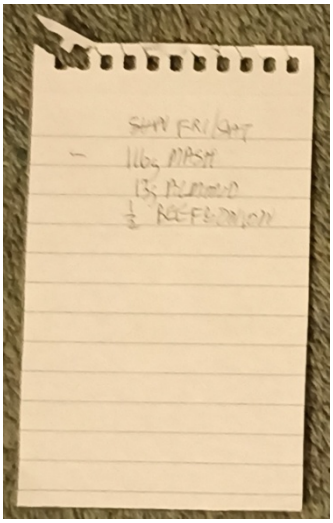
To access your meal library the following screenshots will guide you.



Double click on a code

This will pull up the corresponding *Foodrec* record (a peek)





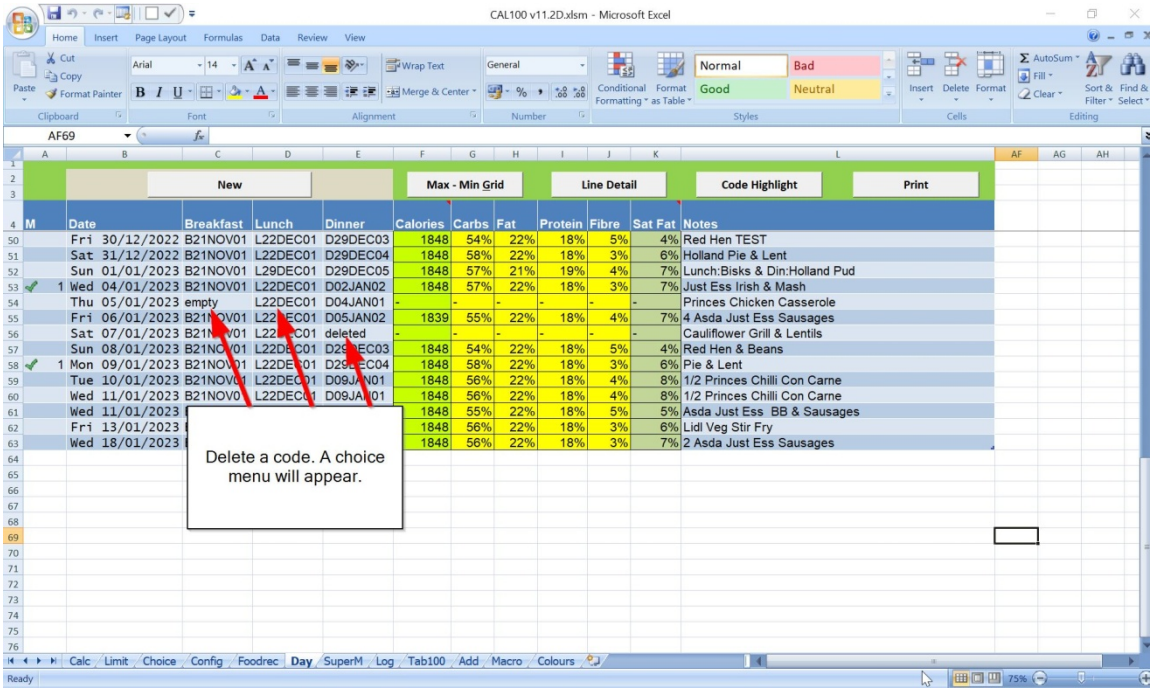
Pressing OK will return you back to the *Day* sheet.

HINT: For short entries, I tend to scribble down this information on a notepad (a low-tech solution!).

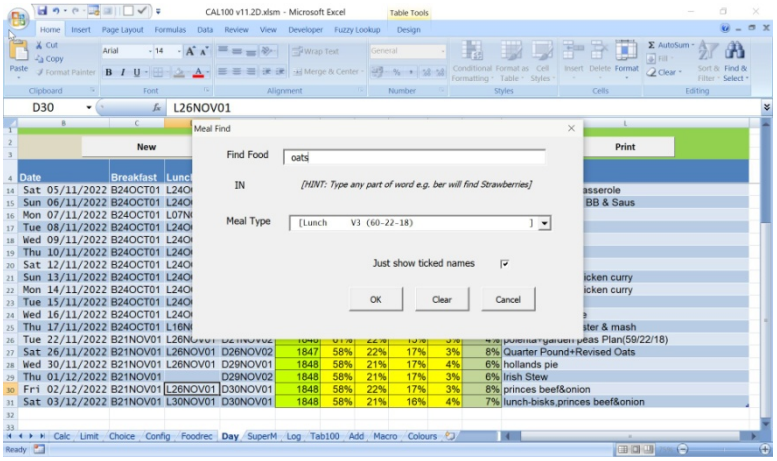
Leave Popup message showing while writing, then press OK to return to *Day* sheet.

NOTE: There is an option to print individual meal entries on the Foodrec sheet for a more permanent record of meal entries. (see Foodrec sheet info for details. Search: #printone)

Deleting a code



Deleting an existing code pulls up a **Choice** menu.



This is the **Meal Finder**.

HINT: When changing your meal plan, the older meals can be found by extending the option list with the down arrow.

****** Extra Information *******

1) Some **plans** on the *Config* Sheet have an entry of **BLANK** for some of the meals. On the *Day* Sheet, these are shown with the code **BLANKREC**.
2) If you type the word **blank** in the **Find Food** search box, the code **BLANKREC** will be entered as the code for that meal (irrespective of the PLAN label). *Day* totals will be readjusted accordingly.

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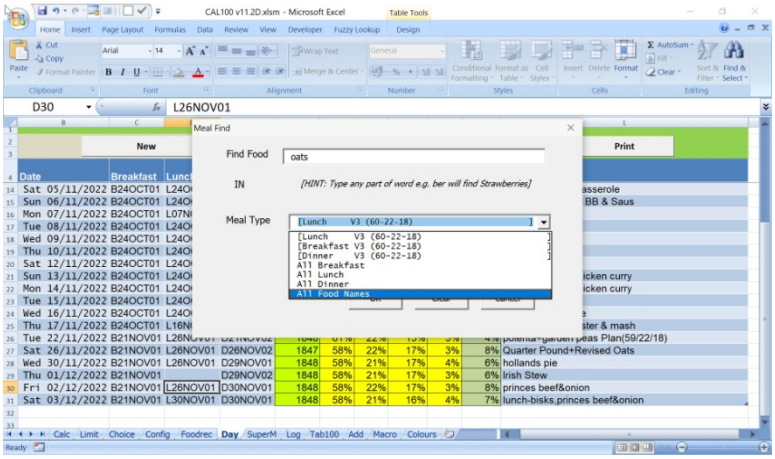
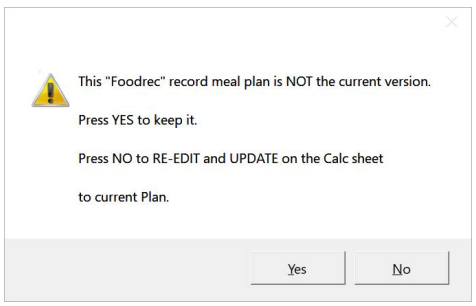


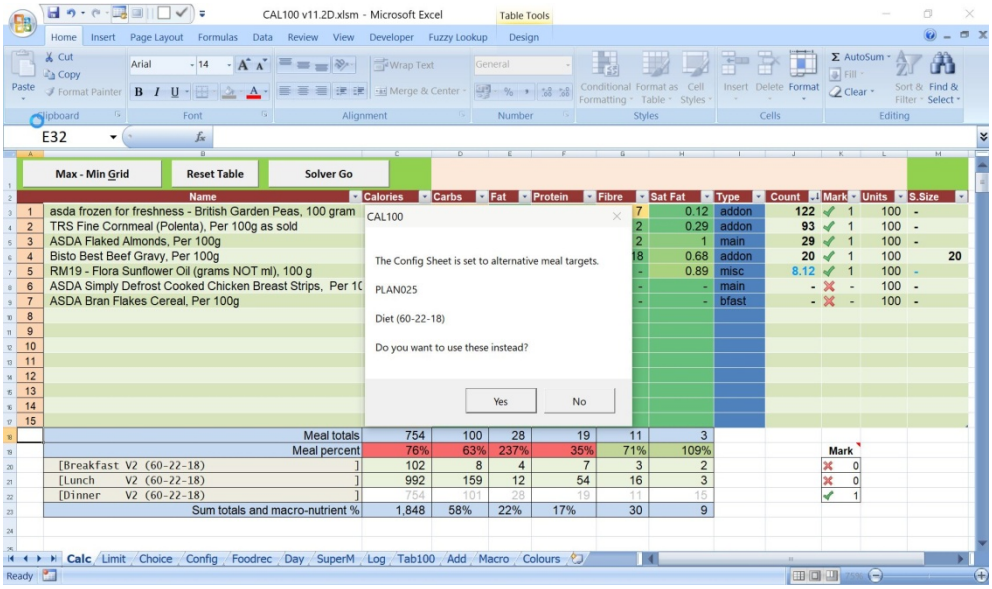
NOTE: There are actually two meal finders. This one does not have the option to search **Notes** put in *Foodrec* headers. Use **Cntl m** (on any page) to access this.

An example of loading up an older meal: If you choose “All Dinner”, you can search all dinners by leaving the “Find Food” as blank or partly fill in a name to make it more specific.

On reaching a meal of interest, you will get this prompt if it is not the current plan (as determined by the current *Calc* sheet meal plan):



Choosing “Yes” leaves it **without** change. i.e., it still has the **old** PLAN target values. You are then returned back to *day* sheet.



Choosing “No” gives a second prompt.

At this point, you can decide to re-edit the meal with the original target values (**No**) or with the current target values (**Yes**). These are set on *Config* Sheet (the 3 selection ticks).

You will notice the values change on the three meal target lines if choosing Yes.

Press ***Solver Go*** to reassess the values with the new plan. Save as normal.

On returning to *Day* sheet you can pick the modified meal using the new plan meal names.

Copy and paste codes:

After a few weeks, the majority of your “Day” calendar records are likely to be repeats of previous records. Copy and paste will save valuable time in maintaining records.

A second copy option is also available. The Excel **Fill** command will work with the codes. **Fill Down** being the most useful. Grab two or more cells with a left click, then press **Cntl D**

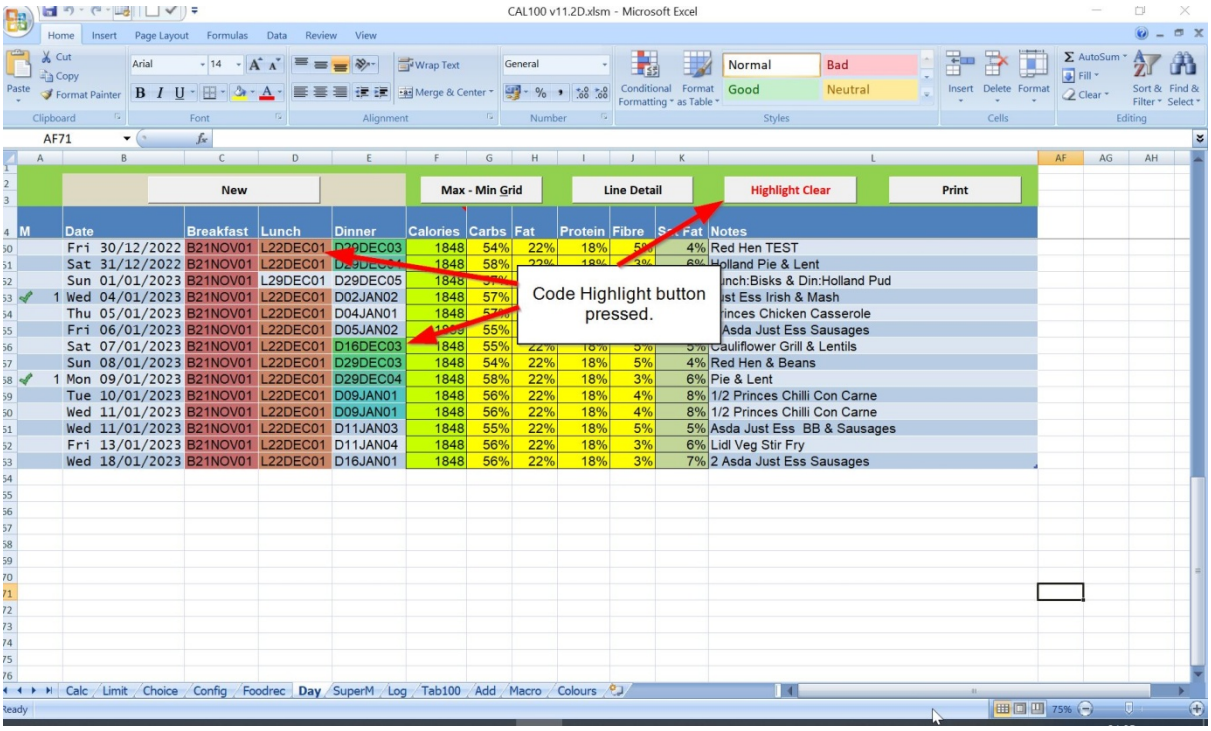
A practice session of using the *Day* Sheet on a test copy of CAL100 is advised.

Print:

Where possible, a PDF print driver is best installed to use for printed copies (and much cheaper too!). There are quite a few free PDF drivers. I use the standard Microsoft Print to PDF.

Double click to the left of a *Day* line to select. Print button is top right of the page.

Code Highlight:



When a large number of codes have been entered, the multiple use of the same codes for a meal can make looking for a pattern difficult.

To assist in spotting repeated use of a code, an additional option button has been added to the *Day* sheet.

The **Code Highlight** button will determine the top 20 **duplicate** codes for each meal column and colour these duplicates.

It's a toggle button to switch ON and OFF this feature.

Other Info:

1) *Day* Lines can deleted using **Cntl W**.
2) The code sequence allows for over a year's usage and won't overwrite a previous year entry.

THE LOGS SHEET

Log files are mainly for future improvements in the features of CAL100.

They also ensure that any new ingredients that are added have a different name from any previously used. This is to prevent choosing an ingredient where the name stays the same, but the macro-nutrient values may have altered, e.g. a new recipe of BrandX Tomato soup.

The information will also show the success of the programme's handling of new variations in the way supermarket listings are presented.

An issue you may notice is that Sugar and Salt are only partly featured in this version of the programme.

Sugar and Salt entries are particularly prone to error. A range of different types of errors are commonly found on food websites listing ingredients.

For example, an entry for Salt can be listed with 400 times the correct value if EU and USA food labels have been inter-mixed. This is common on websites that cater for both US and EU clients.

Where possible, the priority of CAL100 development has been to show only information that is reliable.

SUPERM and ADD SHEETS

Labels on pre-packed foods tend to be the most reliable source of nutritional information.

This programme has 2 page sections for the adding of ingredients: *SuperM* and *Add*.

The *SuperM* page is designed to obtain the nutritional information straight from web pages of online UK supermarkets.

Transferring information is by a “copy and paste” technique.

A conversion for online Australian supermarkets using Kjoules and Sodium is also made.

Later versions of this programme will include additional supermarket “modules”.

The *Add* page partly implements this “copy and paste” for an ingredient name but requires manual entry of values to complete.

This should cover entries where a specific supermarket “module” is not available. EU and US style food labels are supported.

********** Extra Information **********

- This “copy and paste” technique will operate even if a supermarket website includes “CAPTCHA” technology. i.e. need to tick pictures of Crossroads / Fire Hydrants, etc, before accessing the website.

- It will also operate where a login is required.

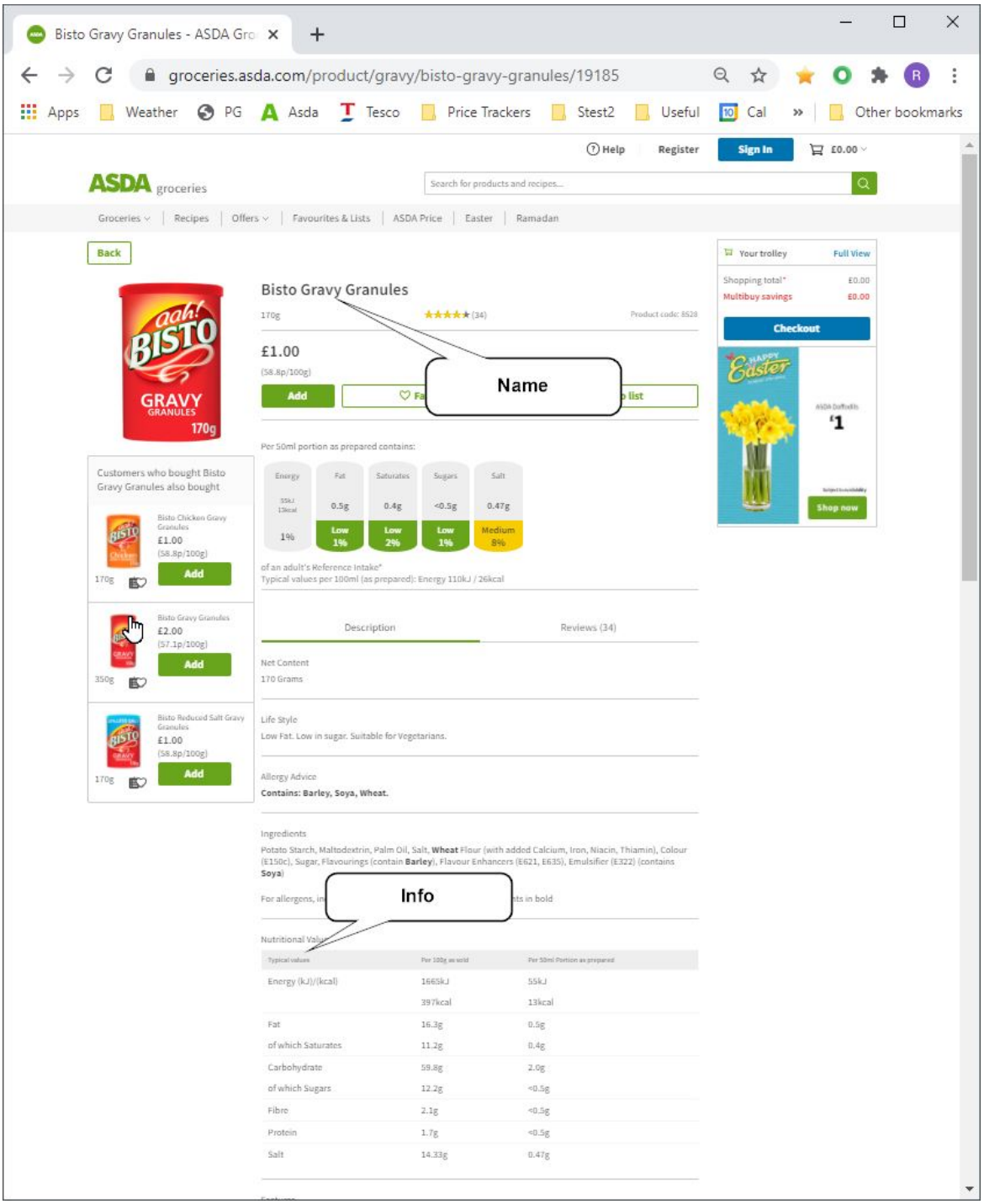
- A food label name can use written language scripts such as Chinese and Hindi.

- The *Add* page details some known issues and caveats with using other sources of website nutrition information.

****

THE SUPERM SHEET

The website for **asda.com** is used in these examples.

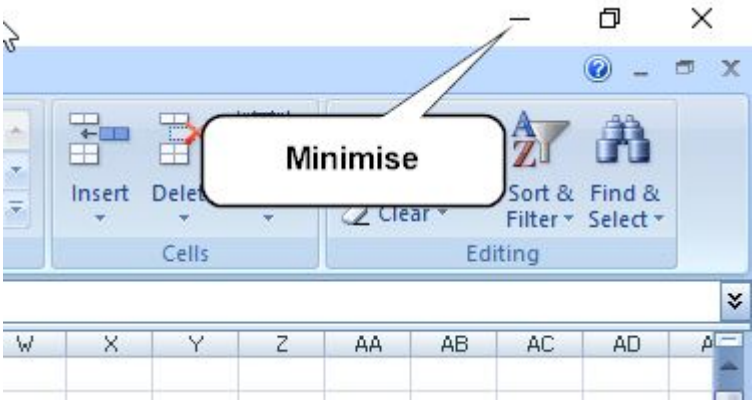


Showing search for Bisto gravy on the Asda website

Example of copying information from Asda.

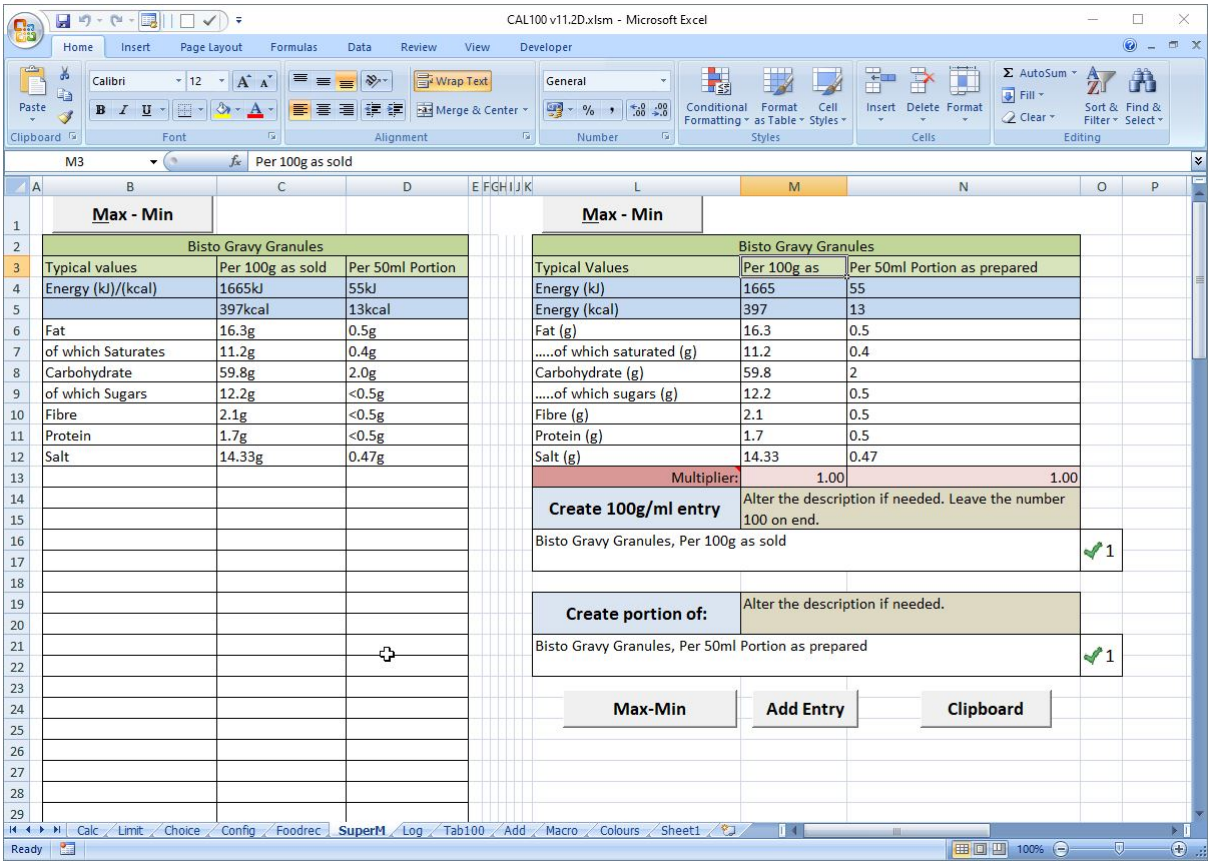
Once *SuperM* page has loaded.

- Minimise CAL100.



- Load website **asda.com** (Google Chrome / Web Browser)
- Search for **Bisto** gravy (Example shown on the previous page)
- Press **Ctrl a**
  (this will select **all** of the webpage; don't worry about any excess.)
- Press **Ctrl c** to **copy** page.
- Minimise **asda.com** (the information will be now in the computer's clipboard)
- Maximise CAL100.
- Ensure *SuperM* page is still showing.
- Click **Clipboard** button on *SuperM* page.

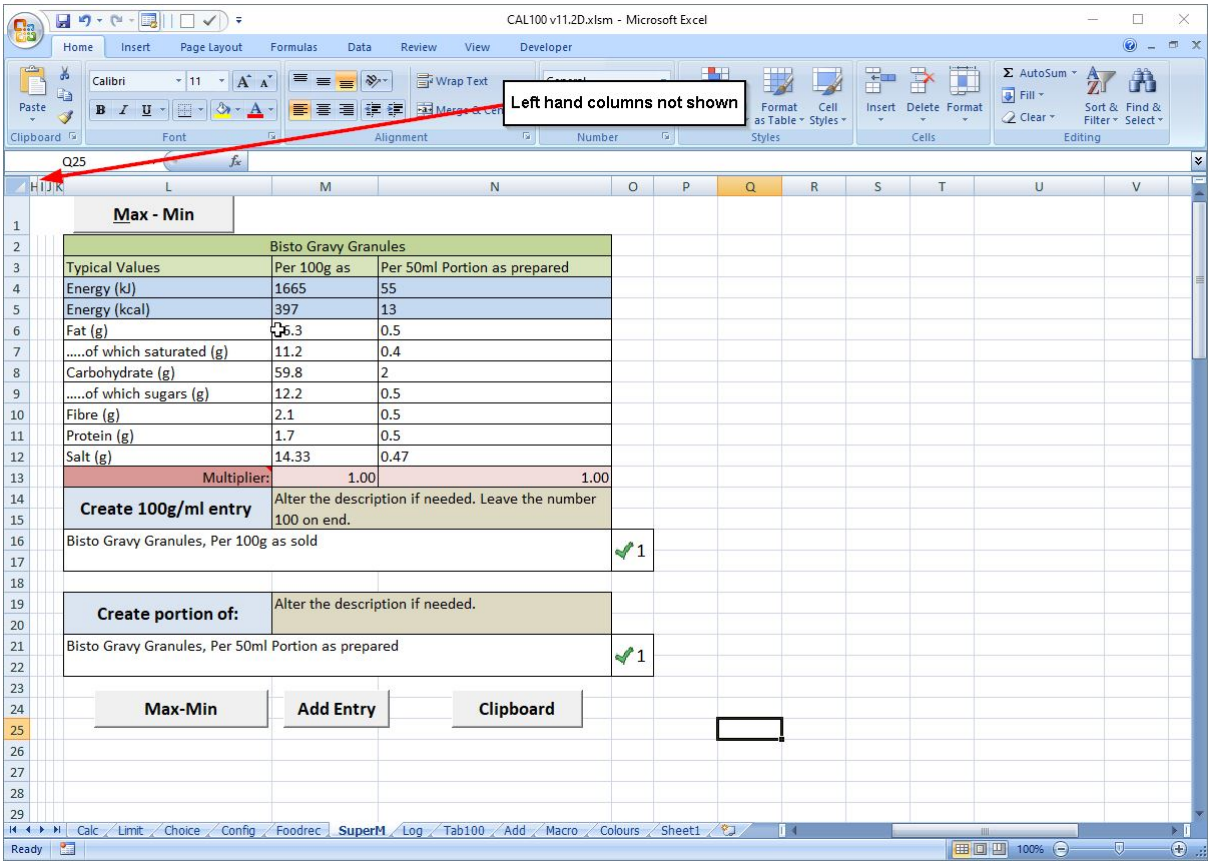
The info now loads, as shown in the screenshot.



The raw SuperM information is loaded into the left hand columns. Some products (e.g. some baby milk) have food labels listing up to 100 nutrients, vitamins and minerals. Different continental number styles (the thousand mark and decimal mark) are also corrected.

This raw label information is read once a paste has been completed, and a standard set of macro-nutrient information is then produced for the product. It is also double checked for accuracy at the same time.

The screen is normally loaded to keep the **left hand *raw* information** available but **out of view** as is typically not needed.



********** Extra Information **********

Labels occasionally have the symbols < and > on a macro amount.

e.g. < 0.5g fat.

This programme resolves this to mean 0.5g fat.

****

You should now review the loaded information. There are usually two parts to the label: a **100g/ml** section and a **portion** section.

The main item to check are the descriptions, which may contain possibly surplus information such as “as cooked”. Edit labels as appropriate (if screen maximised, press F2 key to directly edit an Excel cell).

When ingredients have been reviewed, they are added to the *Choice* sheet by clicking the **Add Entry** button.

On adding, this programme will look at the end of descriptions for the tag phrase **100g** or **100ml**.

If **found** at the end of a description, this will be treated as a 100g/ml product.

If **not**, it will treat as a portion.

Another section to review is the multiplier section, which is rarely used but may occasionally be useful.

For example, entering a value of **2** will double all values in the column. Likewise, **0.5** will halve. This may be of use with dry goods where water is added (or vice versa). The tag PRE-PREP is added to description names if other than 1. (**Note:** This tag can be edited out)

You should also decide whether to keep either the 100g/ml section or the portion size section (by ticking the selector box), as both are not often of use.

********** Extra Information **********

Note 1) If you think there may be future changes to an ingredient, for example, a size change to a chocolate bar. It may be worth adding extra information to the description, such as the **year** or current **portion weight** (so long as portion weight is not 100g (**HINT:** you could write "hundred gram" instead)

Note 2) For users with high resolution monitors, the *SuperM* page will look pushed to the left.

This gives you an opportunity to see both the Supermarket website and CAL100 on screen at the same time by use of Windows logo keys ⊞←keys and ⊞→ keys (Windows 10).

Alternatively, for Windows 7,8 users**, right**-click on the taskbar (at the very bottom of the Windows display) and choose *'Show windows side-by-side'* when both programmes are showing.
****

THE ADD SHEET

The *Add* page is used for manual entry of food nutrition labels. A copy and paste of ingredient **names** is, however, possible.

The ADD page has two parts: for entry of EU/UK food labels and for USA style food labels. The USA entry system has additional features to compensate for the different calculation method for fibre.

USA = Calories in fibre **included** in carbohydrates @ 4 Cal per gram.

EU/UK = Calories in fibre **treated separate**ly from carbohydrates @ 2 Cal per gram.

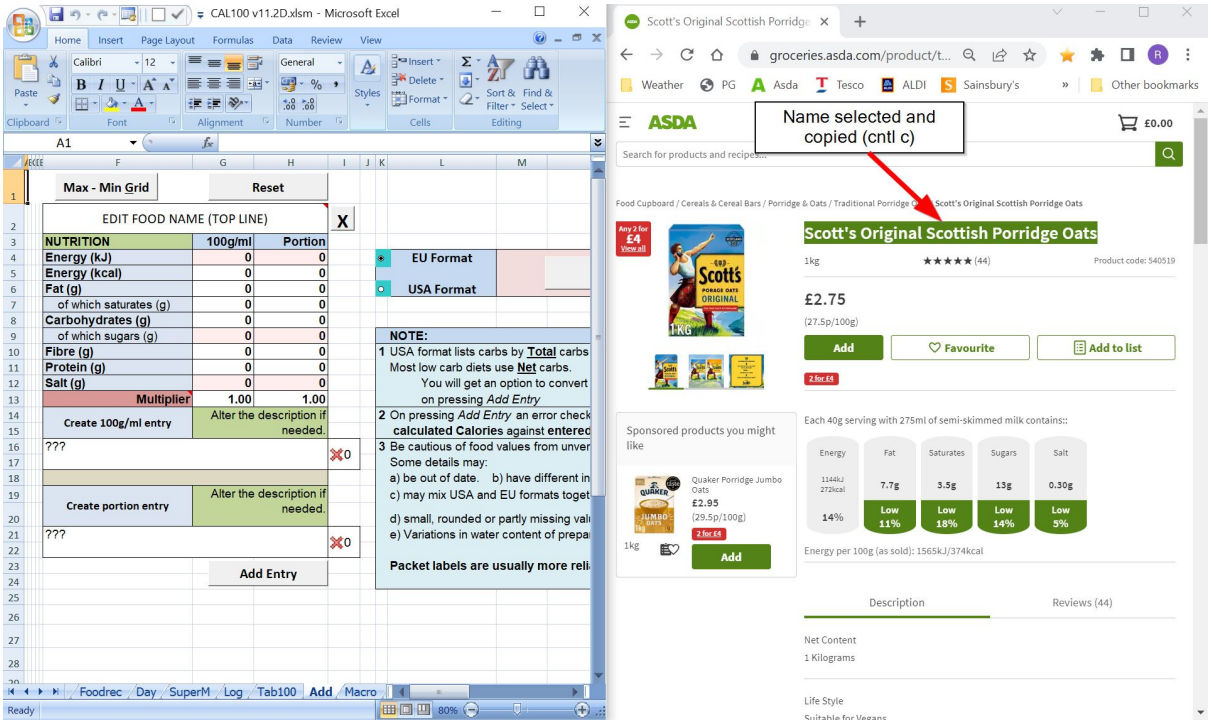
This programme stores all foods in EU/UK label format, so a conversion to this format is performed with US labels. (see later for details).

ALSO NOTE: A kilocalorie (kcal) is another word for what's commonly called a Calorie (Note the capital C when referring to kcal's).

Kilojoules (kJ) are the metric measurement similar to Calories. There are around 4.2 kJ to 1 kcal. This program will double check any kJ / kcal entries for a match.

ADD (EU)

Where possible a food label is easiest to manually copy when both the supermarket (or shop) web page is open alongside this programme. As shown.



In the screenshot above, the **Clear** button has removed any previous entry, and the **EU Format** button has been selected. A supermarket product has been located in a browser using a second window (see extra info below to split-screen).

The product name on the browser page has been highlighted by a press and hold of the left mouse button while dragging the cursor to the end of the name. Once done, press **Ctrl c** (copy).

Switch to CAL100 and press **Paste Name** button.

********** Extra Information **********

HINT: If dragging the cursor over name from left to right seems to grab too much, try dragging right to left instead.

****

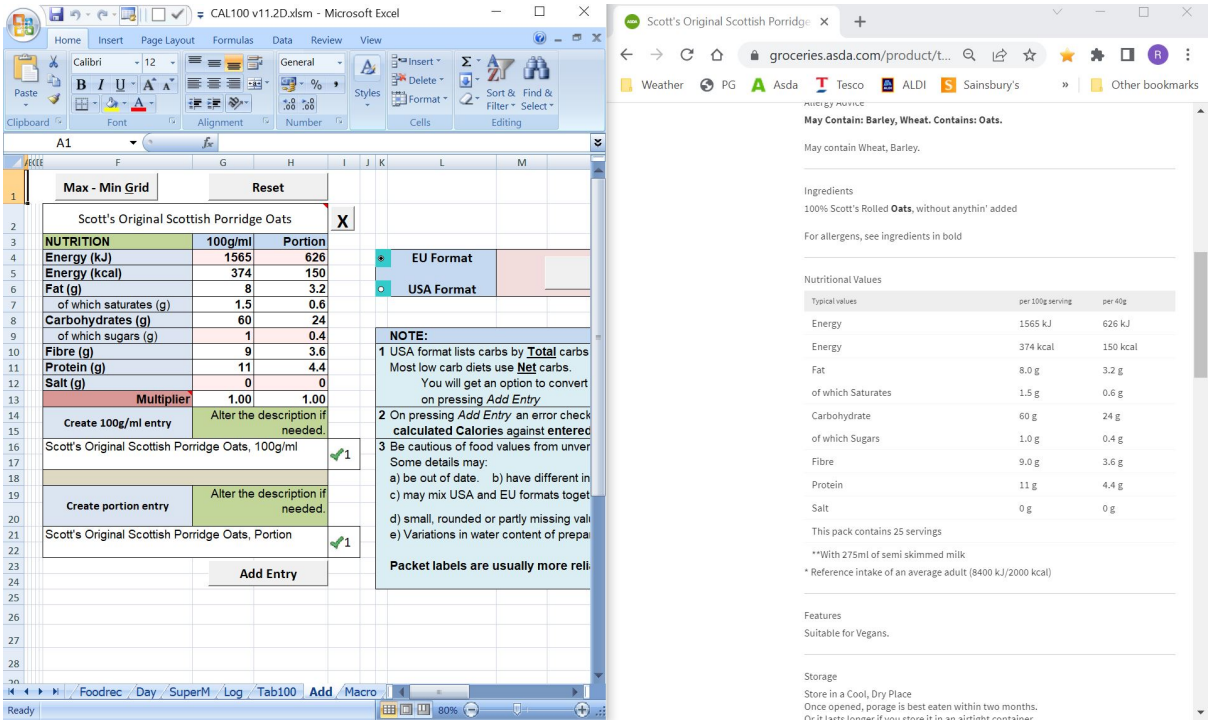
Once the product name is stored, move back to the browser and locate the **Nutritional Values**. At this point, you need to type these values into CAL100.

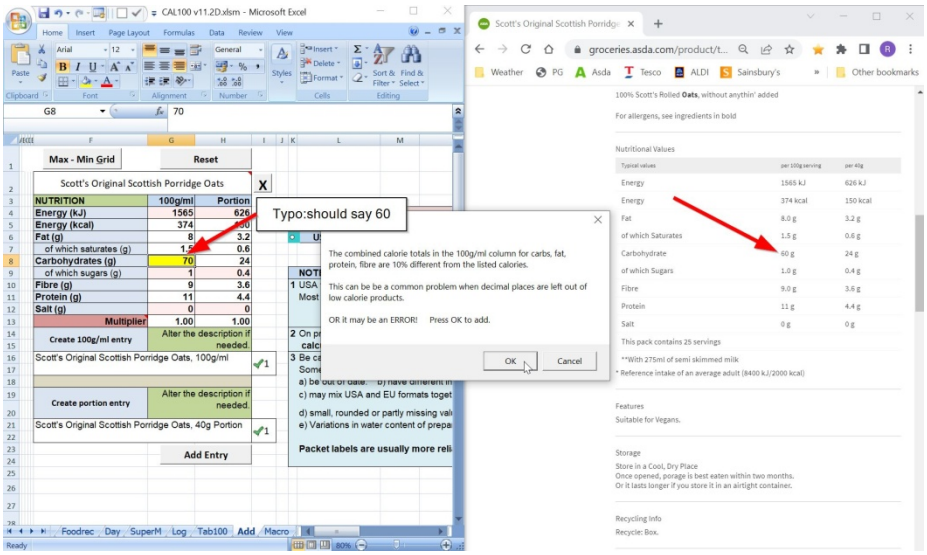
There is no need to type both sections if you intend to just use one section (by ticking).

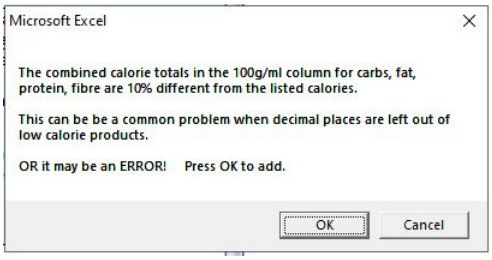
The two section names shown under **alter description name**, 100g/ml and portion, may need reviewing.

NOTE: On 100g/ml section, keep at least **100g** or **100ml** as a final tag on the description, **as is used to determine if it is a 100g/ml entry type. If not found, it is treated** as a portion instead.

Once complete, press **Add Entry** button.







The values are then checked. An error message may appear as shown.

In this case, carbohydrates were mistyped in the 100g/ml column.

******* Extra Information 1 (also applies to *SuperM* page) *******

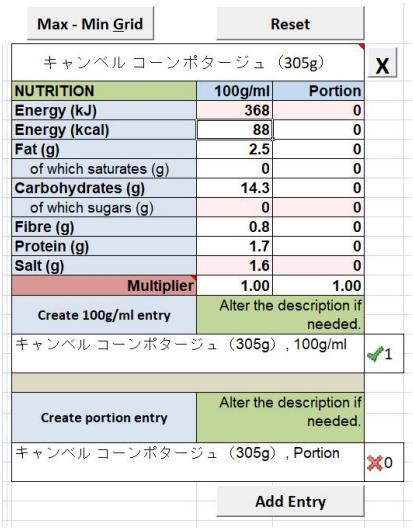
For users with high-resolution monitors, the *Add* page will look pushed to the left.

This gives you an opportunity to see both the supermarket website and CAL100 on screen at the same time by use of Windows logo keys ⊞←keys and ⊞→ keys (Windows 10).

Alternatively, for Windows 7,8 users**, right**-click on the taskbar (very bottom of Windows display) and choose *'Show windows side-by-side'* when both programmes showing.

********** ** Extra Information 2 **********

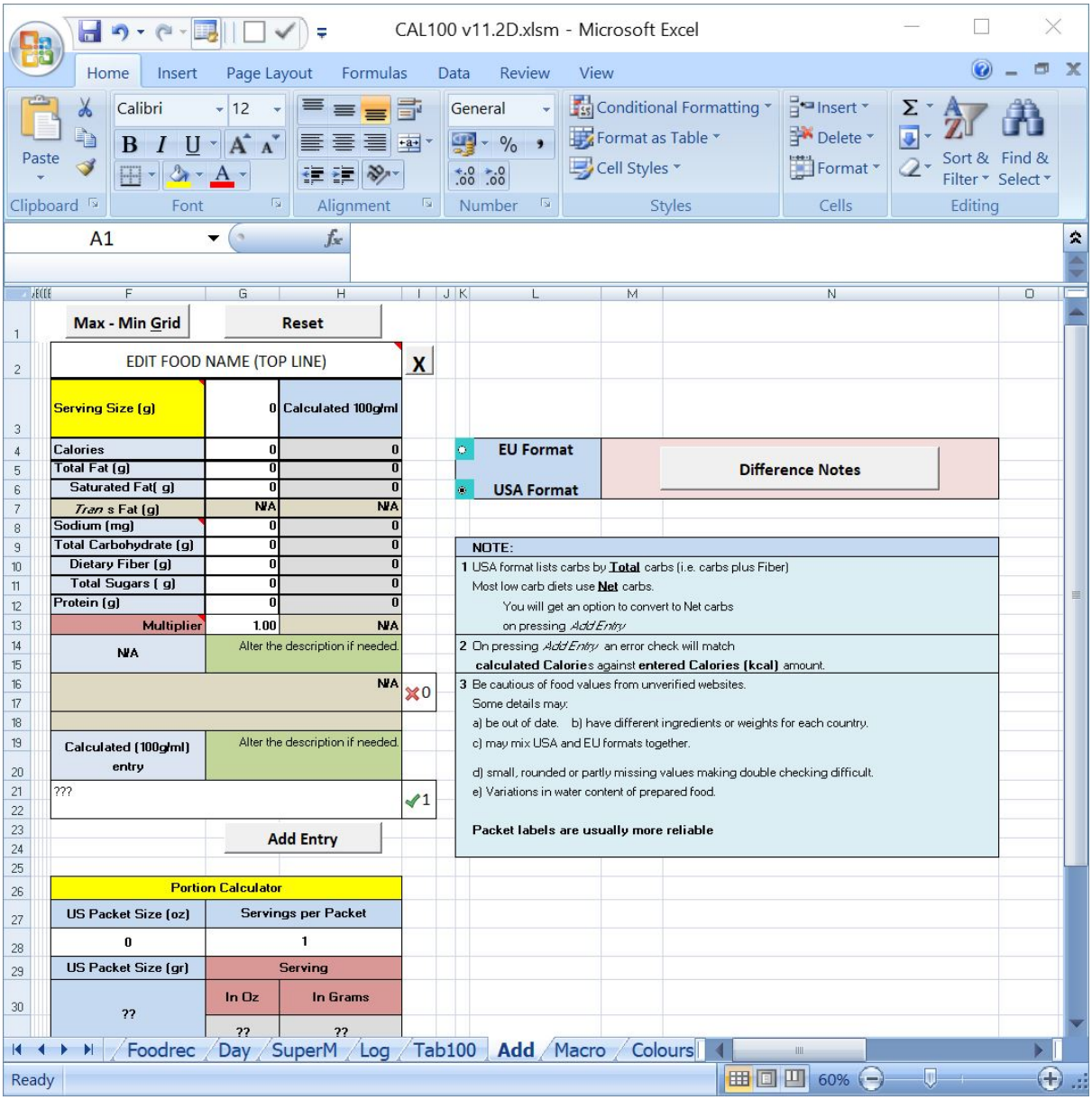
Add also supports the entry of names with language accent marks and names in script based languages.



****

ADD (USA)

The *Add* page **USA Format** option has additional features, as shown.



USA food labels tend to focus on a food's portion size as part of an overall daily target. There is less emphasis on Calories with this system. Packet size (usually in oz) and the number of portions per packet are listed on food labels.

ALSO NOTE: USA food labels tend to round values to a much greater extent than EU labels. (see*Tab100* page notes)

A conversion is made from this format to an EU 100g/ml and portion style so these foods can be stored alongside EU labelled products in CAL100.

The addition of a **Portion Calculator** should assist in this.

Adding a food product also has additional steps compared to EU Format.

USAGE: (After copy of product name. See Add EU for details)

1) Load CAL100 *Add* page; select **USA Format** button. **Clear** any previous record.

2) Three different options can be chosen for **Serving Size**: grams, oz and portion by double clicking on this name. Normally **grams** are the most useful.

3) Load the browser and select your supermarket.

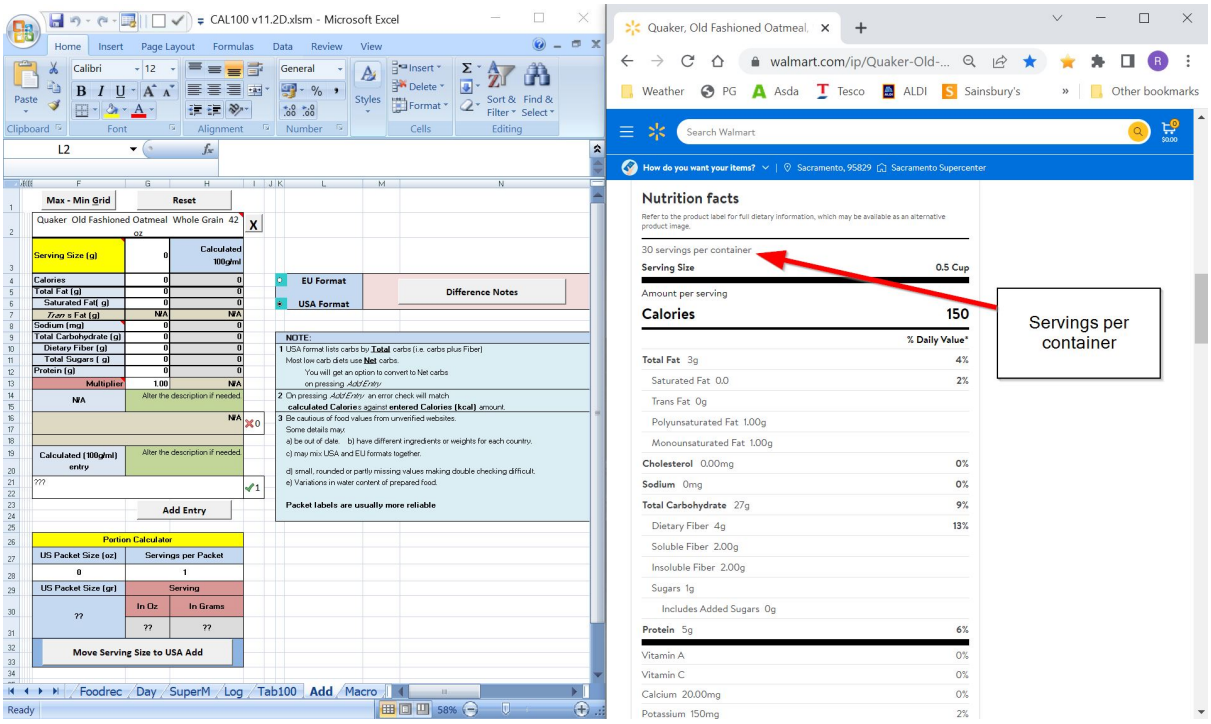
4) Split screen (as detailed in EU Format notes)

5) Highlight the product name on the browser page by a press and hold of left mouse button while dragging the cursor to the end of the name. Once done, press **Ctrl c** (copy).

   ********** Extra Information **********
   HINT: Sometimes, it is easier to highlight a name by starting on the right and working left.
   ****

6) Switch to CAL100 and press **Paste** button. The name should now be listed.

7) Before moving down the browser page, take note of packet size (in oz).



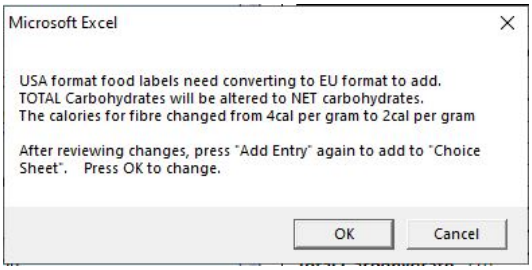
8) Scroll down the browser page and find **Nutrition Facts**

********** Extra Information. **********
Sometimes, it is easier to locate **Nutrition Facts** by pressing the standard Excel **Ctrl f** (find) and doing a search.
****

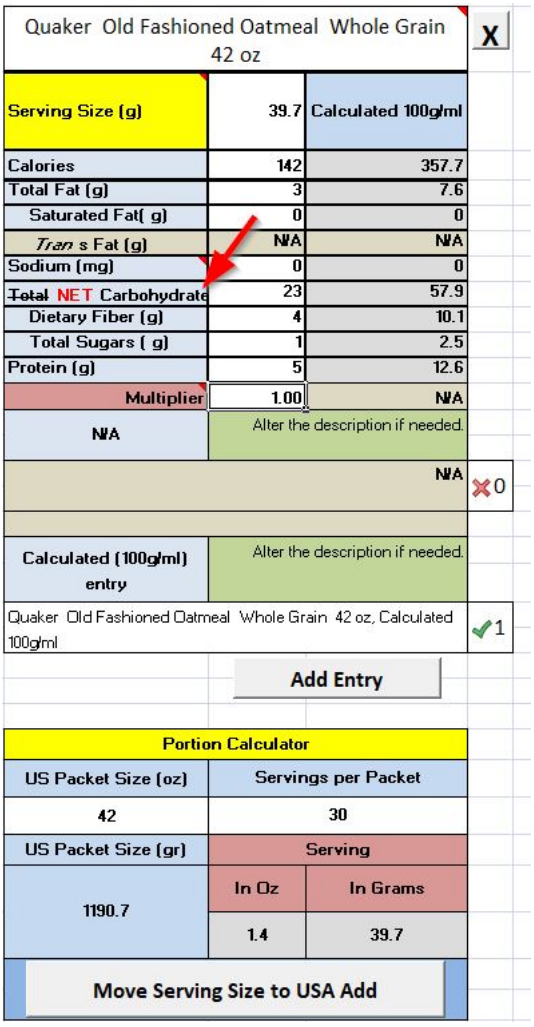
9) In the example shown enter in **Portion Calculator** the **US Packet Size (oz)** and **Servings per packet**.

10) Once the values are entered, Press **Move Serving Size to USA** Add button.

11) Manually copy the browser **Nutrition Facts** to CAL100.

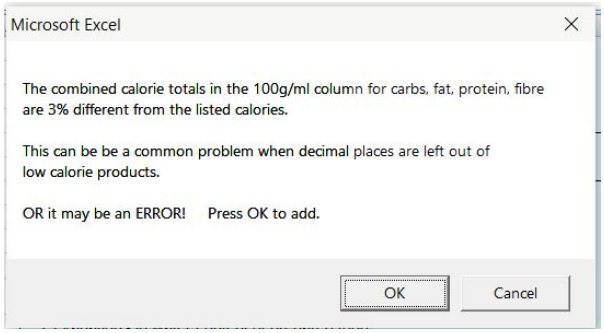


12) Once complete, press **Add entry** (for the first time). You will see the above message.



13) The word **Total** will be replaced by the word **NET** on the Carbohydrates row. The **Calories** value will also change.

14) Press **Add entry** (for the second time to complete. A check of values is made (as shown), and a message will appear if listed Calories differ from calculated Calories by more than 1%.



15) For a USA entry, 3% is quite a good result for accuracy due to rounding of values used by manufacturers.

********** Extra Information **********

If a comparable food in EU format is known, it is advisable to double check errors such as this. In addition, the colour scheme used in this programme for ingredients shows these errors when similar foods are compared after being sorted by values such as carbs (see **Tab100**)

****

16) Ingredients will be moved to *Choice* sheet.

THE TAB100 SHEET

The *Tab100* sheet is used to assist in the decision making of choosing ingredients. This sheet highlights foods by means of a colour scale for each macro.

It is based on a calculation of the:

Macro-Nutrient Energy in a 100 Calorie Portion

of an ingredient (the CAL100 scale).

100 shades of colour are used to indicate this. Green lowest (0%), Yellow at around 50%, then a high of Red is used (100%)

The scale colours are a measurement of each macro based on the **percentages** of the Calories (NOT the weight) of each macro in a 100 Calorie portion.

The advantages of such a scale:

1) You can judge dry or powdered ingredients against products with high water content. e.g. Dry whey powder with bottled milk for a direct comparison of protein.

2) Judge an ingredient of any portion size against a standard 100g/ml size. e.g. One Tic-Tac with 100g of table sugar.

3) This way of measuring compensates for fat having 9 Calories per gram versus carbs and protein having 4 Calories per gram.

The scale used is particularly useful when shown as colours as it can be used as a background to complement the actual weight values that are “grabbed” from supermarket product labels.

Some surprising results can be found using this scale. For example; Bananas (which are 75-80% water) have about the same carbohydrates per 100 Cal as Corn Flakes or cooked Rice and are similarly each marked deep Red.

The energy percentage values are shown directly on the *Tab100* sheet. But are also used as the background colours on the *Choice* sheet.

********** Extra Information 1 **********

Fibre and saturated fat are again marked by percentage of Calories, but the scale is altered to reflect the smaller percentages typically found.

- Fibre is indicated in ¼ percent units. (based on 2 Cal per gram)
- Saturated fat in ½ percent units. (based on 9 Cal per gram)

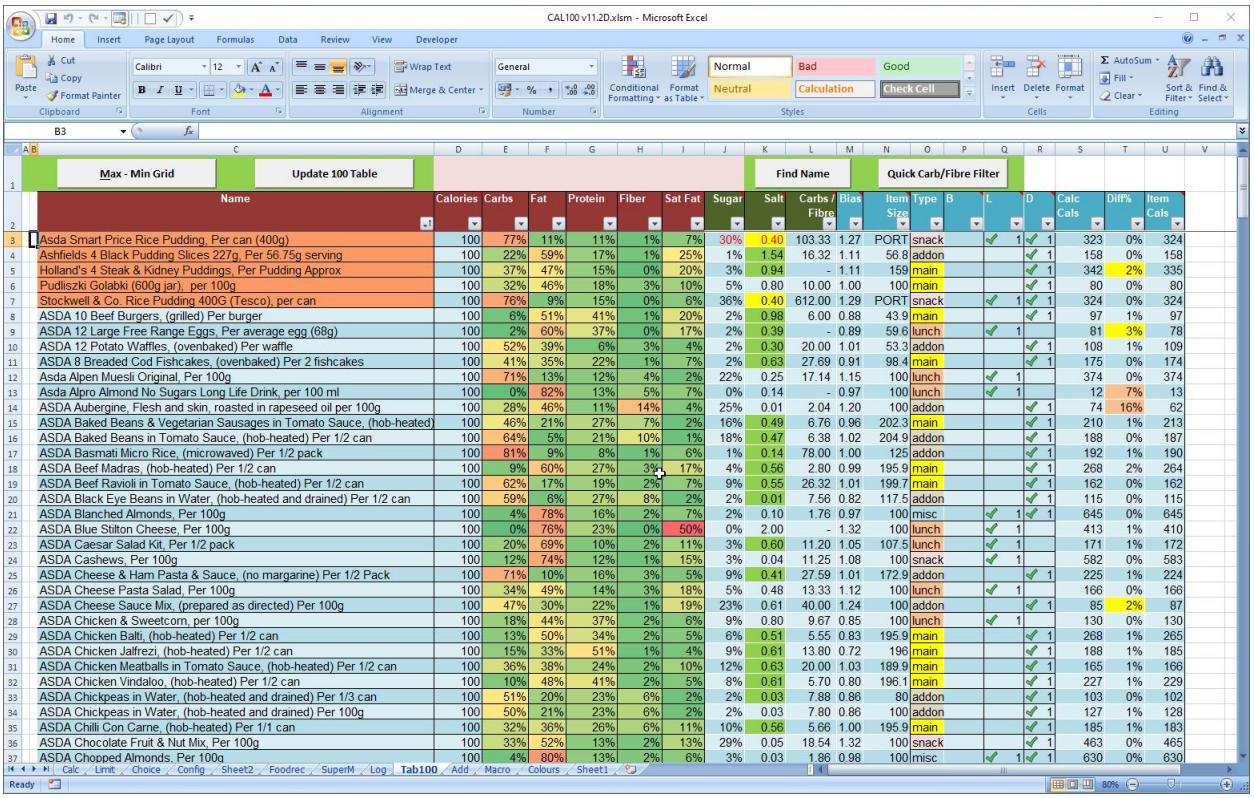
See the full chart of values on *Colours* sheet

********** Extra Information 2 **********

The usefulness of CAL100 scale will become apparent in yet another new scale. This is currently called **Bias** (more on this later)

**********'**********

The sort options, which can be found in the top column headers of the table, are perhaps the main tool of the *Tab100* sheet.



USAGE

The only requirement is:

To update, use **Update 100 Table** button. Apart from the various table sort options at the top of the table, this table is mainly read only (see Bias)

Errors between listed Calories (i.e. the Calories that were input when the food was added to *Choice* sheet) and a calculation of Calories based on each macro weight can also be reviewed. These are shown to the right of the table.

If an ingredient needs to be removed, this should be done on the *Choice* sheet. To delete, double click its name on the *Choice* sheet. You will get a prompt to confirm.

********** Extra Information **********

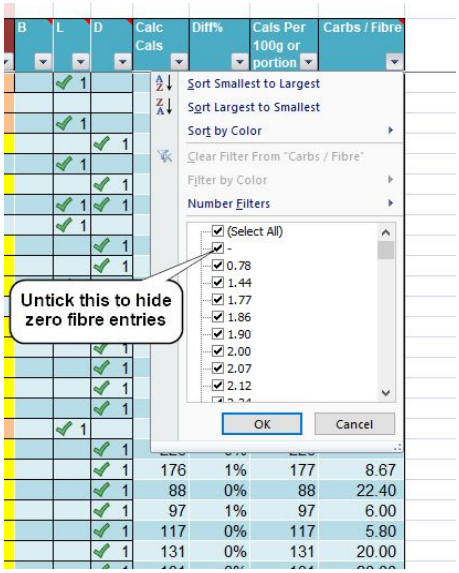
Note 1) In totalling up the ratios to 100%, the **Fibre** Calories percentage are **separate** from **Carbs** (the European format).

Note 2) The **Saturated Fat** percentage is **also included** in the **Fat** percentage.

Note 3) The **Sugar** percentage is **also included** in the **Carb** percentage.

********** Extra Information **********

Sort and Filter Options



Excel table headers:

You can sort data by text (A to Z or Z to A), numbers (smallest to largest or largest to smallest), and dates and times (oldest to newest and newest to oldest) in one or more columns.

You can also sort by a custom list you create (such as Large, Medium, and Small) or by format, including cell color, font color, or icon set.

ADDITIONAL COLUMNS: These information columns, when used with column header Sort and Filter options, may give useful insights as to the suitability of food choices.

Sugar and **Salt:** These are left out of the other Excel pages to allow older computers to show as much detail as possible on one page.

The ***Sugar*** column is shown as a percentage per 100 Cal.

NOTE: This percentage is also included in the ***Carb*** column as well. e.g. all the Carbs in Grapes are Sugar. *Tab100* sheet shows Grapes as 94% Carbs and 94% Sugar.

The ***Salt*** column is **NOT** shown in 100 Cal format but as an actual value in grams. The value shown is ***Salt*** per 100g/ml.

For portions, the value is adjusted accordingly. E.g. a 50g gram portion of cheese with 1 gram of salt is shown as 2. This allows 100g/ml items to be directly compared with portions.

For more details, a help screen is available by selecting any value in the ***Salt*** column (single left click) then press F6 key.

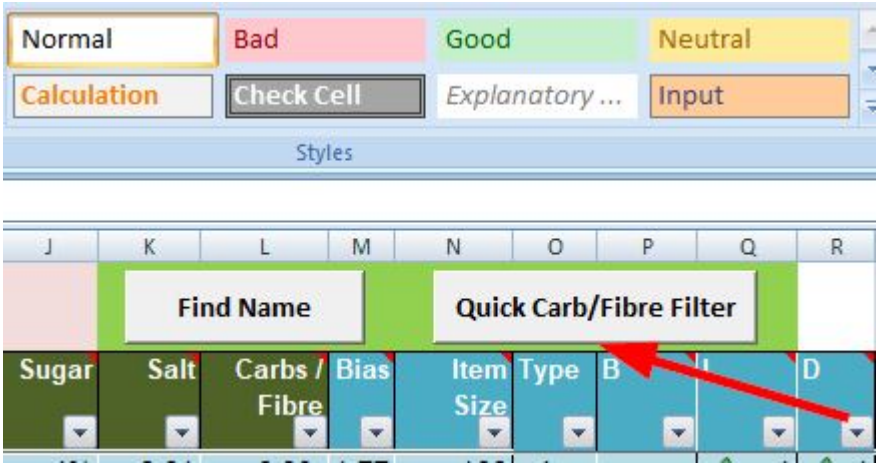
Carbs / Fibre: (Carbs divided by Fibre) column is included for two reasons:

1) For low carb dieters who want options to still maintain the recommended daily fibre content while keeping carbs to a minimum.
2) It is also particularly useful for highlighting foods that contain high amounts of refined carbs.

A very low number, e.g. Kale (0.71), would be an ideal choice for the first group. Highly processed foods tend to remove most fibre. This is done to make foods easy to chew and swallow.

The header for this column has an option to sort by order and filter out zero fibre listings. (see previous picture)

NOTE: If a product has no fibre it will show as “-“ in a sort which can be confusing. The **Quick Carbs/Fibre Filter** button will filter these entries out for you and sort by lowest to highest values. Pressing the button again will remove the filter.



Bias: Is another variant on identifying refined products. This is a common method used by some commercial weight management programs.

For more details, a help screen is available by selecting any value in the ***Bias*** column (single left click) then press the **F6** key.

Item Size: (in grams). A “copy and paste” of a supermarket listing usually provides two entries: for a 100g/ml and a portion amount. **Item Size** lists the label weight. This usually needs to be calculated if the portion size is not mentioned.

It is calculated from the difference in energy values between a listed 100g/ml size and the listed actual portion.

Type B L D: Copies of information from *Choice* sheet.

Calc Cals, Diff%, Item Cals: Used mainly to identify entries that differ between the Calculated Cals (which CAL100 calculates) and Listed Item Cals.

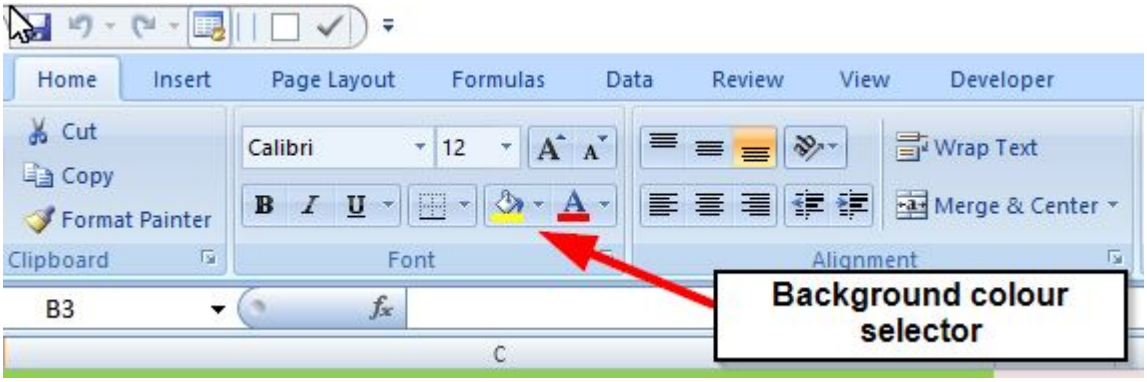
This is the value seen when a difference warning message is shown on pressing *SuperM* page **Add Entry** button.

Large differences are common on low energy foods (e.g. Lettuce) and on food labels using large rounding values. This difference needs to be reviewed on occasion.

Item Cals: (the Cals listed on the packet) These values may also be of use when combined with the formula found in the ***Bias*** column.

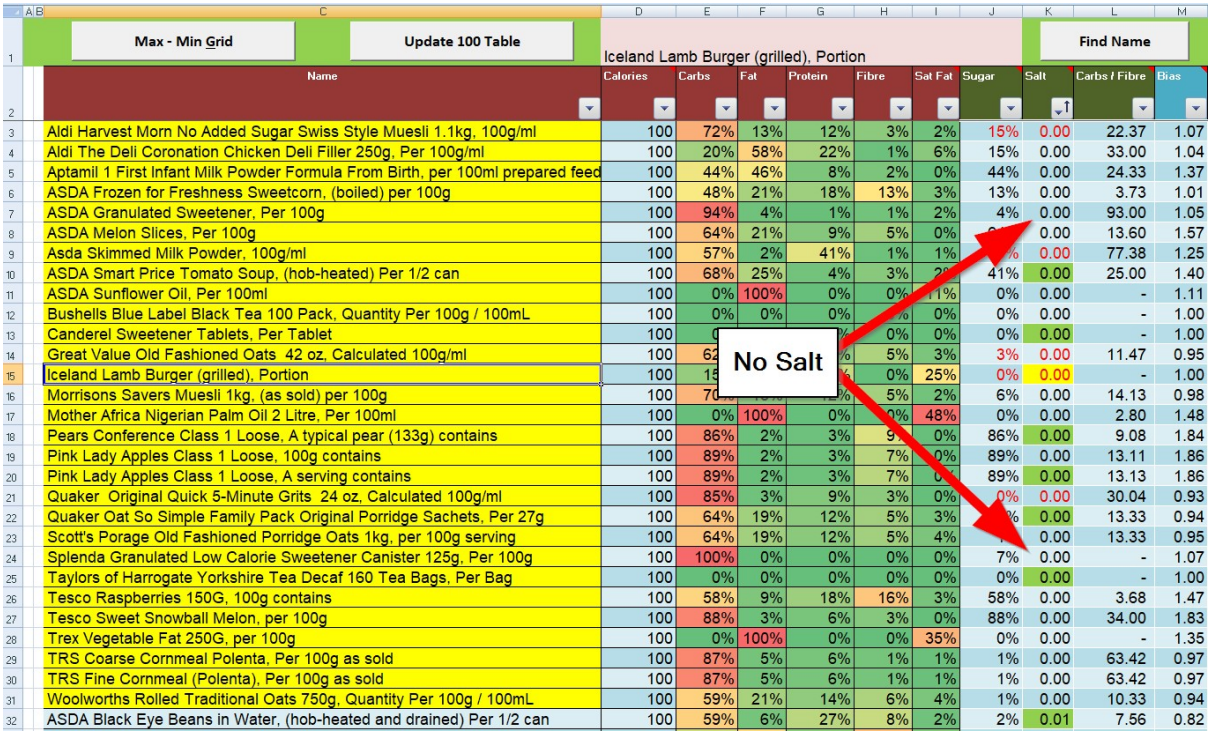
Sheet Colours

A feature which may be useful is any colours used to highlight a range of foods on the *Tab100* sheet can be transferred back onto the *Choice* sheet. You will be prompted on exiting the *Tab100* if you want the colours transferred.



For example, Ingredients have been sorted by low to high salt (in ***Salt*** column header option), then choose all product names with no Salt (left click and drag down to highlight). The background colour button then pressed.

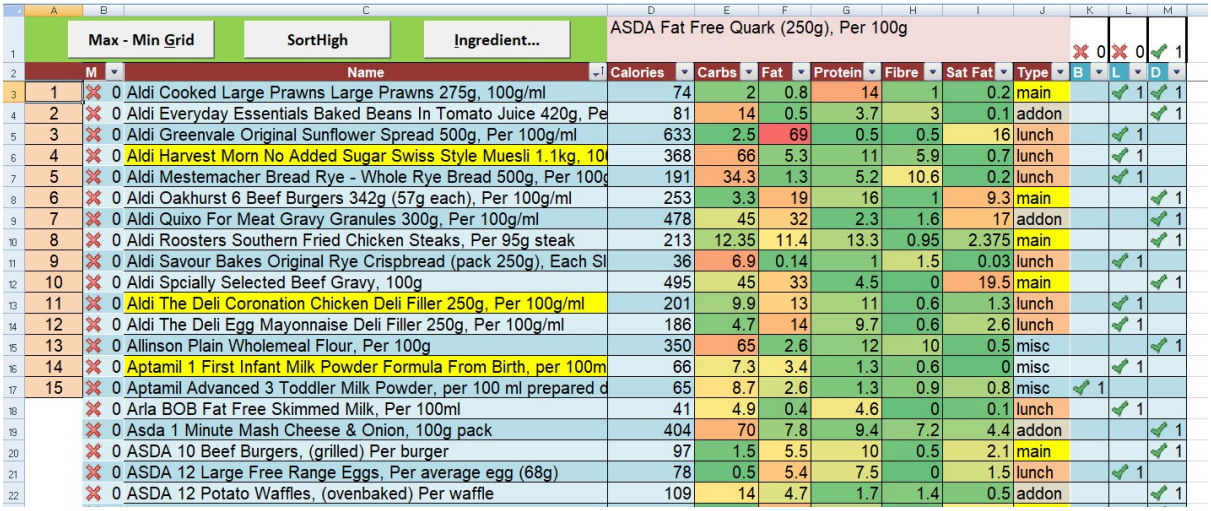
All ingredients with no Salt have been highlighted in Yellow.



Name	Calories	Carbs	Fat	Protein	Fibre	Sat Fat	Sugar	Salt	Carbs / Fibre	Bias
Aldi Harvest Morn No Added Sugar Swiss Style Muesli 1.1kg, 100g/ml	100	72%	13%	12%	3%	2%	15%	0.00	22.37	1.07
Aldi The Deli Coronation Chicken Deli Filler 250g, Per 100g/ml	100	20%	58%	22%	1%	6%	15%	0.00	33.00	1.04
Aptamil 1 First Infant Milk Powder Formula From Birth, per 100ml prepared feed	100	44%	46%	8%	2%	0%	44%	0.00	24.33	1.37
ASDA Frozen for Freshness Sweetcorn, (boiled) per 100g	100	48%	21%	18%	13%	3%	13%	0.00	3.73	1.01
ASDA Granulated Sweetener, Per 100g	100	94%	4%	1%	1%	2%	4%	0.00	93.00	1.05
ASDA Melon Slices, Per 100g	100	64%	21%	9%	5%	0%	[illegible]	0.00	13.60	1.57
Asda Skimmed Milk Powder, 100g/ml	100	57%	2%	41%	1%	1%	[illegible]	0.00	77.38	1.25
ASDA Smart Price Tomato Soup, (hob-heated) Per 1/2 can	100	68%	25%	4%	3%	2%	41%	0.00	25.00	1.40
ASDA Sunflower Oil, Per 100ml	100	0%	100%	0%	0%	11%	0%	0.00	-	1.11
Bushells Blue Label Black Tea 100 Pack, Quantity Per 100g / 100mL	100	0%	0%	0%	[illegible]	0%	0%	0.00	-	1.00
Canderel Sweetener Tablets, Per Tablet	100	[illegible]	[illegible]	[illegible]	0%	0%	0%	0.00	-	1.00
Great Value Old Fashioned Oats 42 oz, Calculated 100g/ml	100	62	[illegible]	[illegible]	5%	3%	3%	0.00	11.47	0.95
Iceland Lamb Burger (grilled), Portion	100	15	[illegible]	[illegible]	0%	25%	0%	0.00	-	1.00
Morrisons Savers Muesli 1kg, (as sold) per 100g	100	70	[illegible]	[illegible]	5%	2%	6%	0.00	14.13	0.98
Mother Africa Nigerian Palm Oil 2 Litre, Per 100ml	100	0%	100%	0%	0%	48%	0%	0.00	2.80	1.48
Pears Conference Class 1 Loose, A typical pear (133g) contains	100	86%	2%	3%	9[illegible]	0%	86%	0.00	9.08	1.84
Pink Lady Apples Class 1 Loose, 100g contains	100	89%	2%	3%	7%	0%	89%	0.00	13.11	1.86
Pink Lady Apples Class 1 Loose, A serving contains	100	89%	2%	3%	7%	0%	89%	0.00	13.13	1.86
Quaker Original Quick 5-Minute Grits 24 oz, Calculated 100g/ml	100	85%	3%	9%	3%	0%	0%	0.00	30.04	0.93
Quaker Oat So Simple Family Pack Original Porridge Sachets, Per 27g	100	64%	19%	12%	5%	3%	[illegible]	0.00	13.33	0.94
Scott's Porage Old Fashioned Porridge Oats 1kg, per 100g serving	100	64%	19%	12%	5%	4%	[illegible]	0.00	13.33	0.95
Splenda Granulated Low Calorie Sweetener Canister 125g, Per 100g	100	100%	0%	0%	0%	0%	7%	0.00	-	1.07
Taylors of Harrogate Yorkshire Tea Decaf 160 Tea Bags, Per Bag	100	0%	0%	0%	0%	0%	0%	0.00	-	1.00
Tesco Raspberries 150G, 100g contains	100	58%	9%	18%	16%	3%	58%	0.00	3.68	1.47
Tesco Sweet Snowball Melon, per 100g	100	88%	3%	6%	3%	0%	88%	0.00	34.00	1.83
Trex Vegetable Fat 250G, per 100g	100	0%	100%	0%	0%	35%	0%	0.00	-	1.35
TRS Coarse Cornmeal Polenta, Per 100g as sold	100	87%	5%	6%	1%	1%	1%	0.00	63.42	0.97
TRS Fine Cornmeal (Polenta), Per 100g as sold	100	87%	5%	6%	1%	1%	1%	0.00	63.42	0.97
Woolworths Rolled Traditional Oats 750g, Quantity Per 100g / 100mL	100	59%	21%	14%	6%	4%	1%	0.00	10.33	0.94
ASDA Black Eye Beans in Water, (hob-heated and drained) Per 1/2 can	100	59%	6%	27%	8%	2%	2%	0.01	7.56	0.82

You will be prompted on exiting *Tab100* if you want the colours transferred to the *Choice* sheet.

Screenshot showing amended *Choice* Sheet with no Salt entries highlighted.



		M	Name	Calories	Carbs	Fat	Protein	Fibre	Sat Fat	Type	B	L	D
			Max - Min Grid / SortHigh / Ingredient...	ASDA Fat Free Quark (250g), Per 100g							0	0	1
3	1	0	Aldi Cooked Large Prawns Large Prawns 275g, 100g/ml	74	2	0.8	14	1	0.2	main		1	1
4	2	0	Aldi Everyday Essentials Baked Beans In Tomato Juice 420g, Pe	81	14	0.5	3.7	3	0.1	addon			1
5	3	0	Aldi Greenvale Original Sunflower Spread 500g, Per 100g/ml	633	2.5	69	0.5	0.5	16	lunch		1	
6	4	0	Aldi Harvest Morn No Added Sugar Swiss Style Muesli 1.1kg, 10	368	66	5.3	11	5.9	0.7	lunch		1	
7	5	0	Aldi Mestemacher Bread Rye - Whole Rye Bread 500g, Per 100g	191	34.3	1.3	5.2	10.6	0.2	lunch		1	
8	6	0	Aldi Oakhurst 6 Beef Burgers 342g (57g each), Per 100g/ml	253	3.3	19	16	1	9.3	main			1
9	7	0	Aldi Quixo For Meat Gravy Granules 300g, Per 100g/ml	478	45	32	2.3	1.6	17	addon			1
10	8	0	Aldi Roosters Southern Fried Chicken Steaks, Per 95g steak	213	12.35	11.4	13.3	0.95	2.375	main			1
11	9	0	Aldi Savour Bakes Original Rye Crispbread (pack 250g), Each Sl	36	6.9	0.14	1	1.5	0.03	lunch		1	
12	10	0	Aldi Spcially Selected Beef Gravy, 100g	495	45	33	4.5	0	19.5	main			1
13	11	0	Aldi The Deli Coronation Chicken Deli Filler 250g, Per 100g/ml	201	9.9	13	11	0.6	1.3	lunch		1	
14	12	0	Aldi The Deli Egg Mayonnaise Deli Filler 250g, Per 100g/ml	186	4.7	14	9.7	0.6	2.6	lunch		1	
15	13	0	Allinson Plain Wholemeal Flour, Per 100g	350	65	2.6	12	10	0.5	misc			1
16	14	0	Aptamil 1 First Infant Milk Powder Formula From Birth, per 100m	66	7.3	3.4	1.3	0.6	0	misc		1	
17	15	0	Aptamil Advanced 3 Toddler Milk Powder, per 100 ml prepared d	65	8.7	2.6	1.3	0.9	0.8	misc	1		
18		0	Arla BOB Fat Free Skimmed Milk, Per 100ml	41	4.9	0.4	4.6	0	0.1	lunch		1	
19		0	Asda 1 Minute Mash Cheese & Onion, 100g pack	404	70	7.8	9.4	7.2	4.4	addon			1
20		0	ASDA 10 Beef Burgers, (grilled) Per burger	97	1.5	5.5	10	0.5	2.1	main			1
21		0	ASDA 12 Large Free Range Eggs, Per average egg (68g)	78	0.5	5.4	7.5	0	1.5	lunch		1	
22		0	ASDA 12 Potato Waffles, (ovenbaked) Per waffle	109	14	4.7	1.7	1.4	0.5	addon			1

********** Extra Information **********

1) You can remove any added background colours by pressing **Ctrl Q** on the *Tab100* sheet.

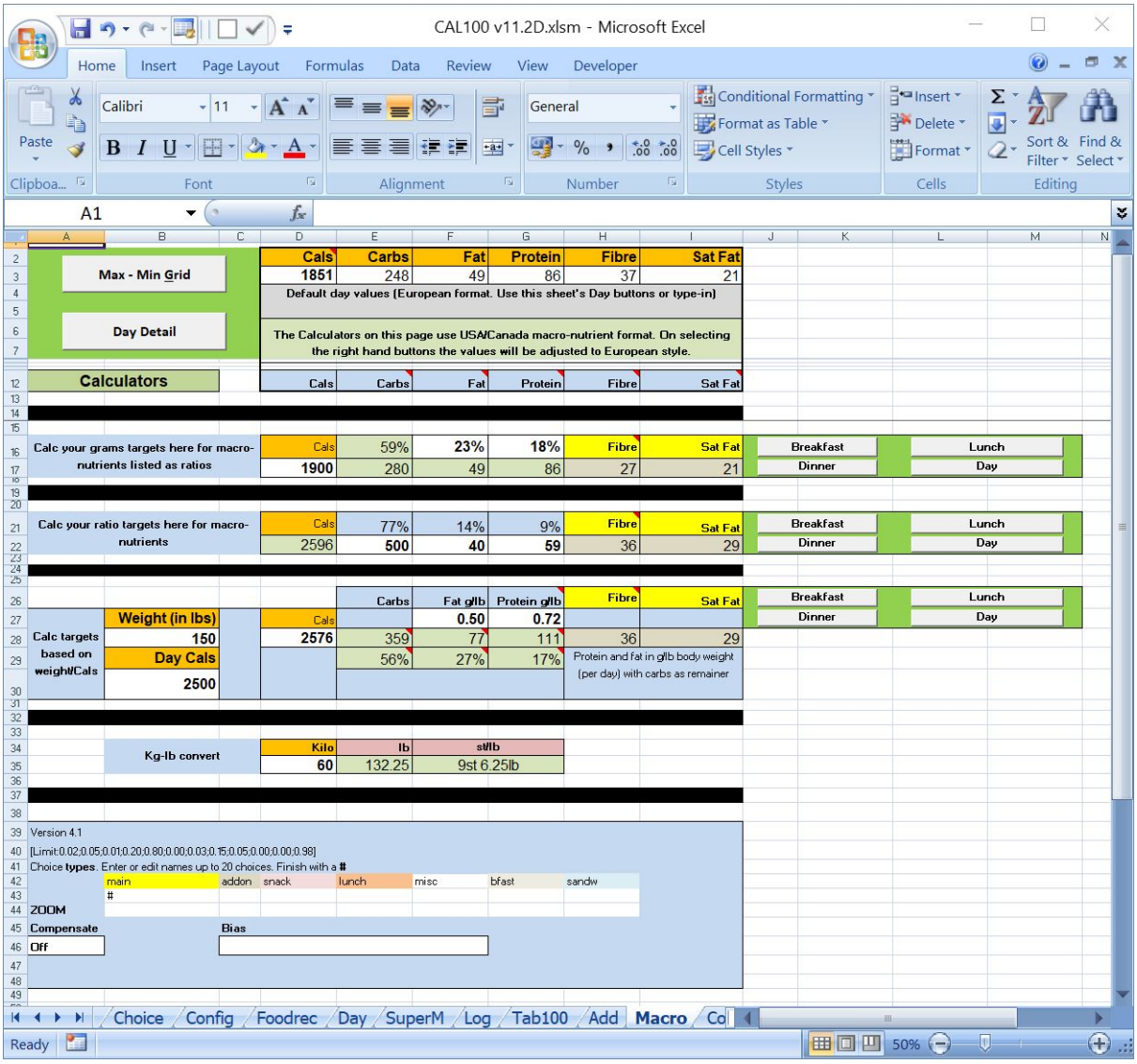
2) On trying to overwrite the colour of products that were selected by a “Find”, the colours will only show in the “Find” colour. Your chosen colour will, however transfer to the *Choice* sheet. Try marking the 100 column as well with your colour if needed.

3) To Clear colours from a “Find”, do a search and enter any name of something not on the list, e.g. ## or use **Ctrl Q**

4) In Excel, you can filter ingredients by colour as well as by smallest to largest order. So, for example, if someone is gluten intolerant, the key problem ingredients can be highlighted in a particular colour.

****

THE MACRO SHEET



The *Macro* sheet is used for storing the reference **Default day values** and for 3 macro-nutrient calculators. Each of the calculators uses a different approach to these calculations. Your diet information will probably mention a particular one.

The Calculators on the Macro Page use the USA/Canada three macro-nutrient format, as this is featured almost exclusively in Nutrition books.

You will later see a revised and improved design format that CAL100 uses to summerise the energy in Calories more accurately.

********** Extra Information 1 **********

Values are converted from a USA/Canada to a European style listing for the following reasons:

- The energy content of Fibre has been redetermined as **two Cals per gram** since the original **four Cals per gram** of the USA/Canada scale were estimated.

- Fibre is regarded as a separate macro-nutrient by the CAL100 programme.

- The **energy** content of Fibre in CAL100 is shown as a **fourth** macro-nutrient.

  ALSO NOTE: This separation of fibre from carbs can have a big impact on how low carb diets are evaluated and considered.

********** Extra Information 2 **********

Default day values: These are used as a reference point in other sections of CAL100, mainly to provide you with a guide (by percentage) of how near that particular value is to your reference.

It also provides the values for a Default day template when creating NEW PLAN's (*Config* sheet).

****

#set first

The top of the sheet shows the current **Default day values**. These are the current macro-nutrient targets for a day and are listed in grams.

Your first task in setting up CAL100 is deciding what these values should be.

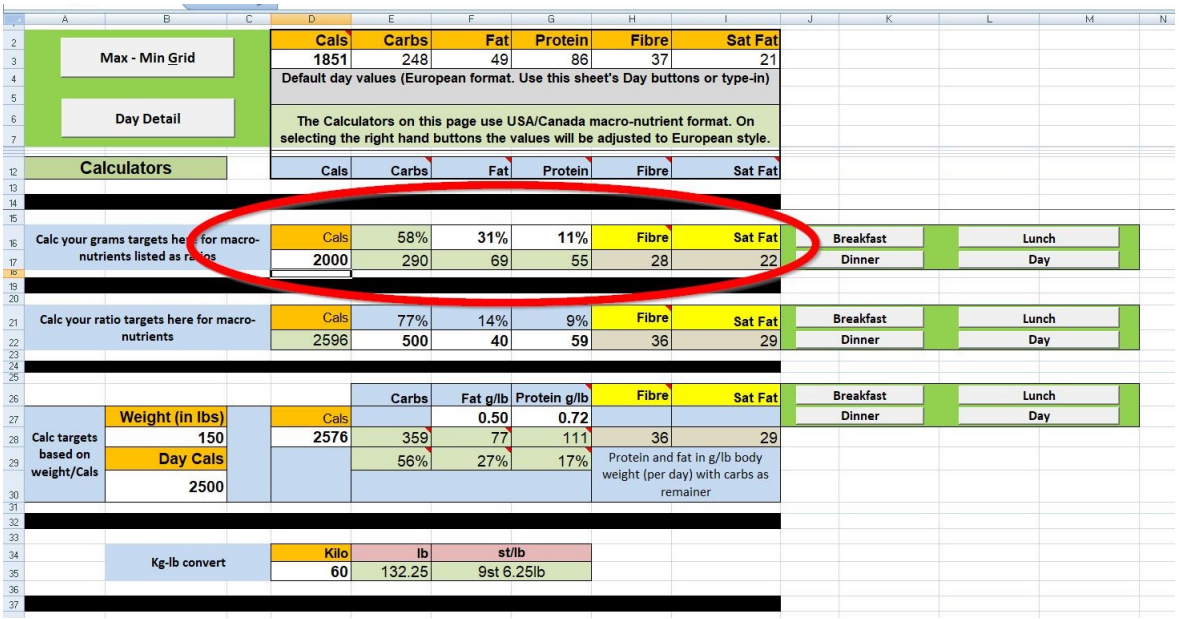
A quick method of filling these values in is to use the **Day** button on any of the 3 calculators also shown on this page.

For example: Our user, Sam Pickwick, has decided to use a macro-nutrient range of:

58% Carbs, 31% Fat, 11% Protein and 2000 Cals.

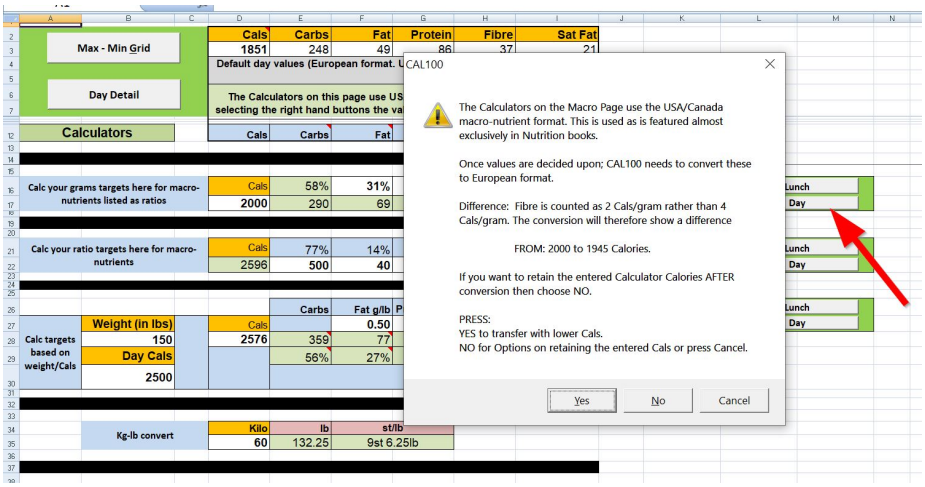
On using the top calculator, Sam has entered 2000 Calories. The calculator will estimate 28 grams of Fibre is required. He then enters 31% for fat and 11% for protein. The calculator then fills in the Carbs entry, so it adds up to 100% of a day's food energy.

Note: At this point, Fibre is **included** in the Carbs entry. (USA style)

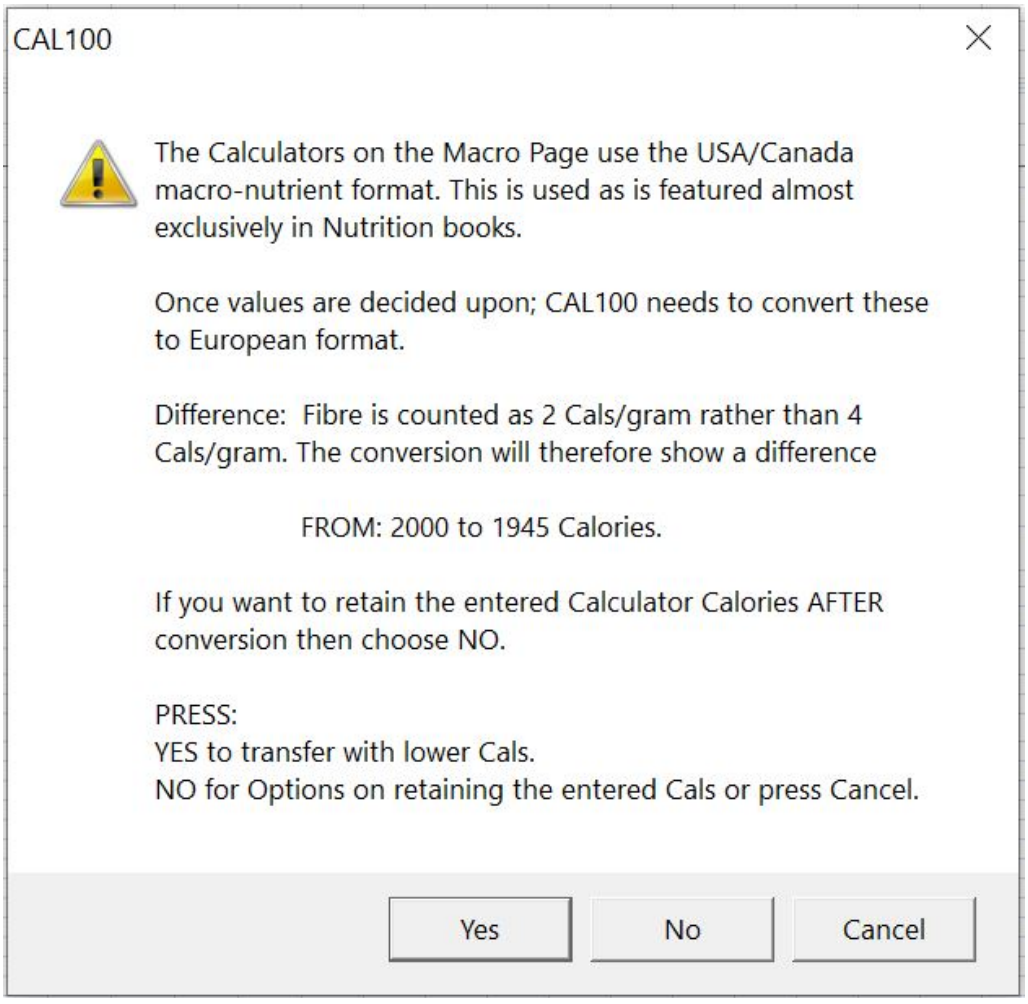


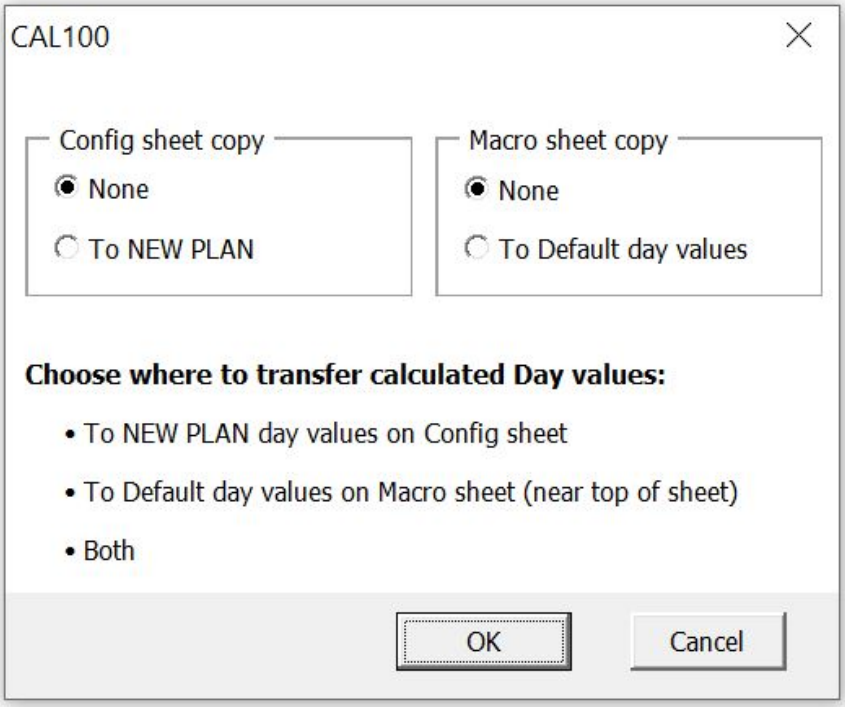
Sam then presses the **Day button**. This is where CAL100 asks how he wants to convert the information to a European style.

Sam will get two options to this question:

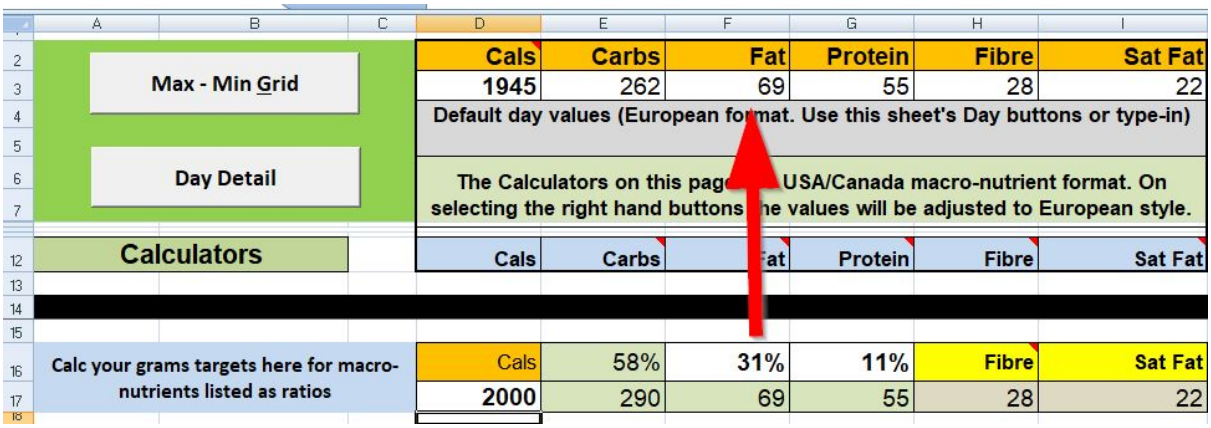


[**Above**: Screenshot on pressing Day button] [**Below**: The message]





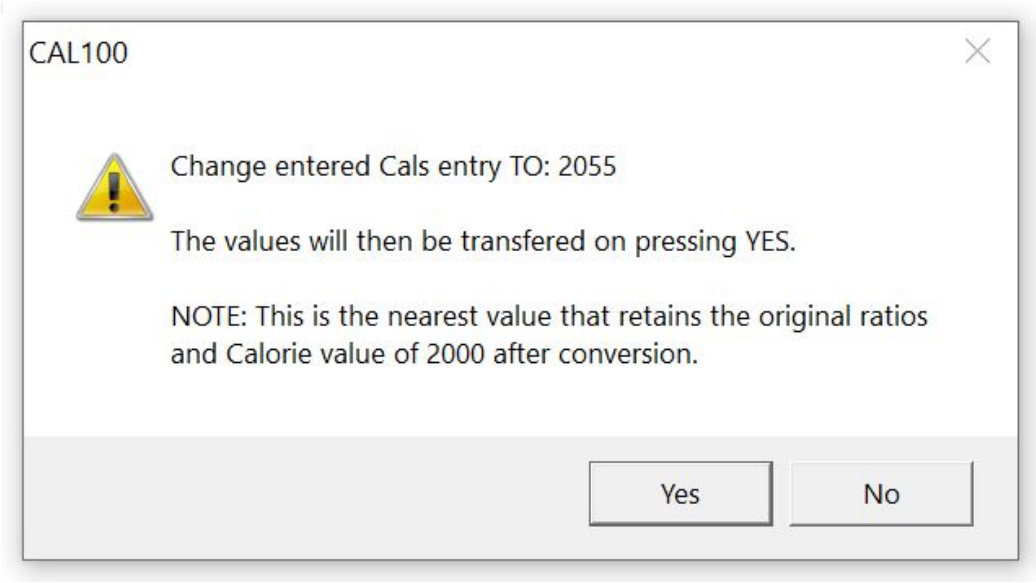
If it is a Day value, Sam will get options of where to save the values. Selecting both options is usually the best choice.



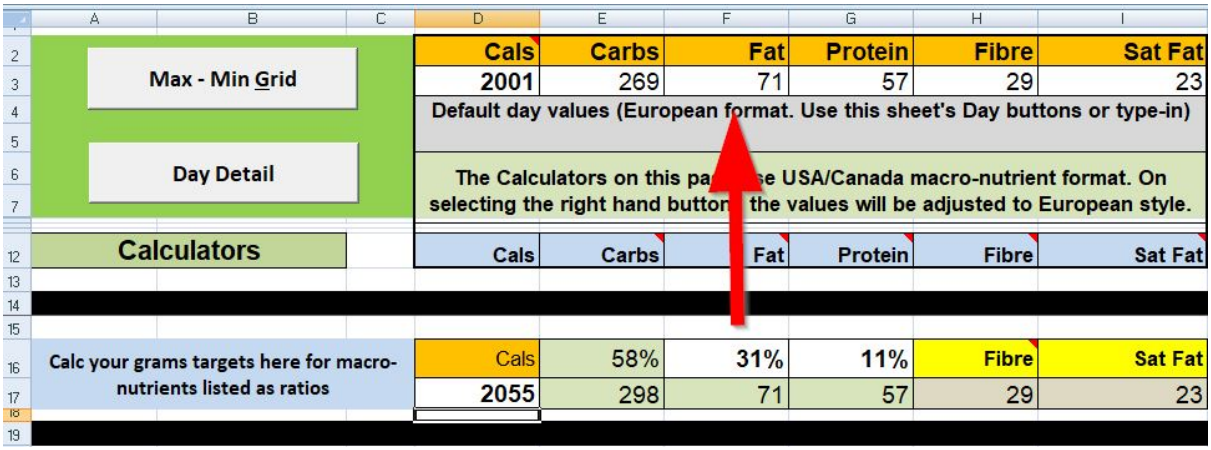
Screen showing **Yes** to first question was pressed (transfer with lower Cals).]

NOTE:

- The Calories are now slightly lower
- The Carbs are also lower. (by 28g as Fibre is now separate from Carbs)
- The Fat & Protein stay the same.



[**Above**: This shows message when NO was pressed to the first question (to retain with nearest Cals).



Screen showing **NO** to first question pressed (retain with nearest Cals).

NOTE:

- The Calculator Calories have been altered slightly higher. (to compensate for the lowering when transferred)
- The Fibre has also been increased slightly.
- The Calculator macro values have also been adjusted slightly higher.

ON CONVERSION: The **Day** values show

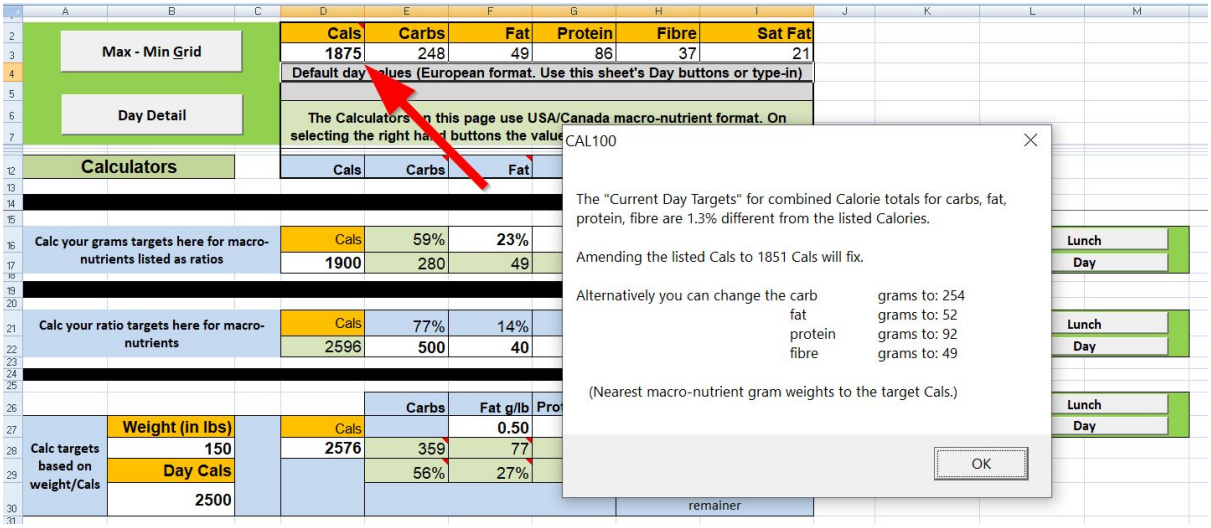
- Fibre is now separate from Carbs (by 29g as Fibre is now separate from Carbs)
- The Calories show the same Calories (to the nearest match) as before pressing Day button.

Hopefully, these messages will make sense (though there is much to think about !)

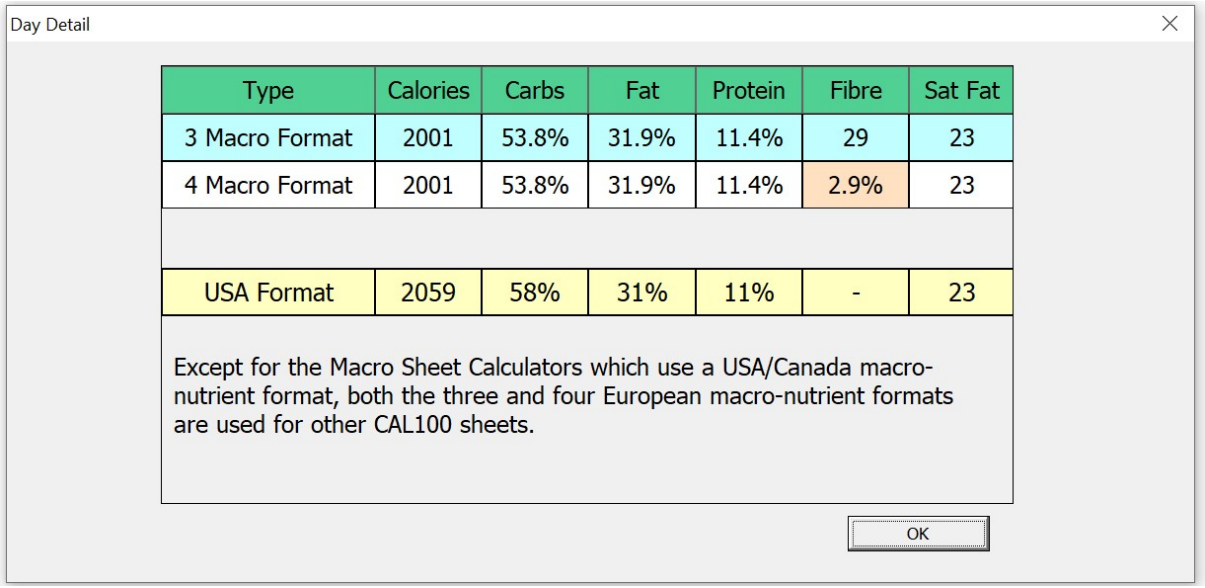
HINT: Try using these options on a **test** copy of CAL100 to see the Conversion in action.

Once values have been transferred to the ***Default day values***, Sam is free to alter any of the values. On hitting the Enter key, the values are checked, and a message will advise.

e.g. Increasing the Calories without changing anything else.

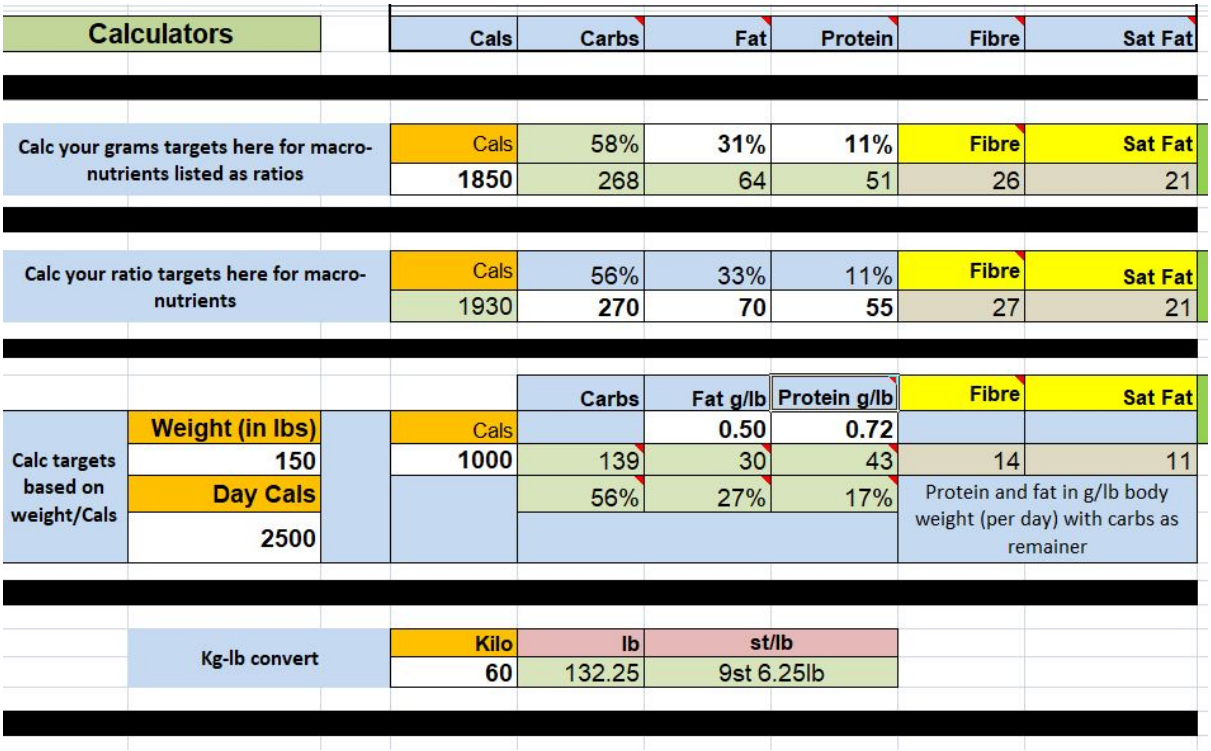


On pressing the **Day Detail** button, Sam can see a breakdown of the values in the different styles. This includes the 4 Macro Format, which is one of the new features in CAL100.



NOTE: Just to complicate things for Sam even more, the values in the Conversion are based on a “best fit” to the nearest Calories due to rounding of numbers to the nearest gram.

The Calculators



Calculators		Cals	Carbs	Fat	Protein	Fibre	Sat Fat
Calc your grams targets here for macro-nutrients listed as ratios		Cals	58%	31%	11%	Fibre	Sat Fat
		1850	268	64	51	26	21
Calc your ratio targets here for macro-nutrients		Cals	56%	33%	11%	Fibre	Sat Fat
		1930	270	70	55	27	21
			Carbs	Fat g/lb	Protein g/lb	Fibre	Sat Fat
Calc targets based on weight/Cals	Weight (in lbs)	Cals		0.50	0.72		
	150	1000	139	30	43	14	11
	Day Cals		56%	27%	17%	Protein and fat in g/lb body weight (per day) with carbs as remainer	
	2500						
	Kg-lb convert	Kilo	lb	st/lb			
		60	132.25	9st 6.25lb			

- Values shown in black text with a white background are editable. Those with coloured background are calculated.

- All three are based on a USA/Canada style calculation of macro-nutrients. The values are then converted to a European style on pressing any of the buttons to the right of each calculator.

Top Calculator:

Covers a calculation based on **Calories** and a **ratio** of macros. This is the most common of the formats used.

e.g. a low carb diet target of 15% carb, 65% fat, 20% protein.

Middle Calculator :

A reverse of the first, which shows the ratios based on gram values entered.

Bottom Calculator:

This is used where a priority is given mainly to **protein** which is set for a target in grams per pound body weight.

Fat can also be set (to take second priority), with carbs making up the rest of the Calories.

To use this calculator, you need to specify two Calorie settings:

1. The **Day Cals** target for your Calories.
2. The actual Calories to be calculated.

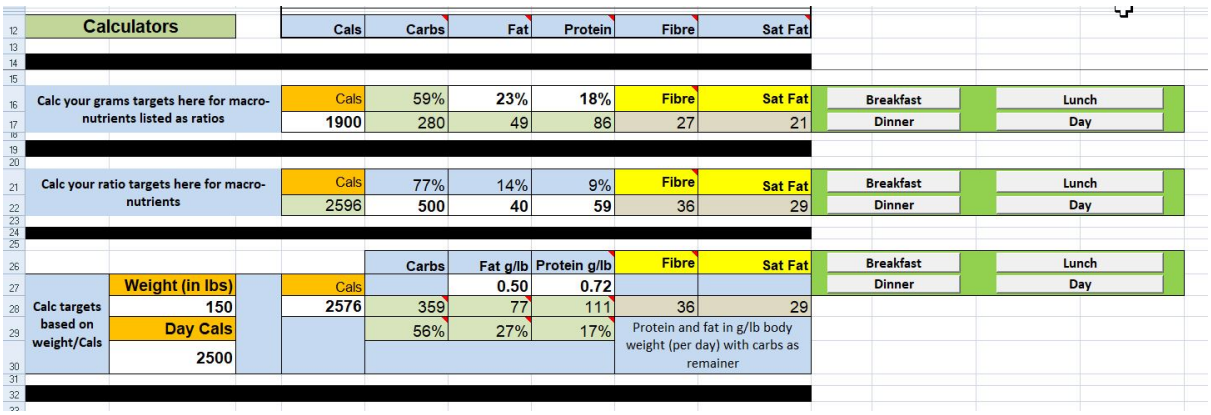
HINT: The correct setting for the Protein value will require some thought.

A useful starting point may be: American College of Sports Medicine

https://www.acsm.org

[Google:] "protein intake for optimal muscle maintenance.pdf"

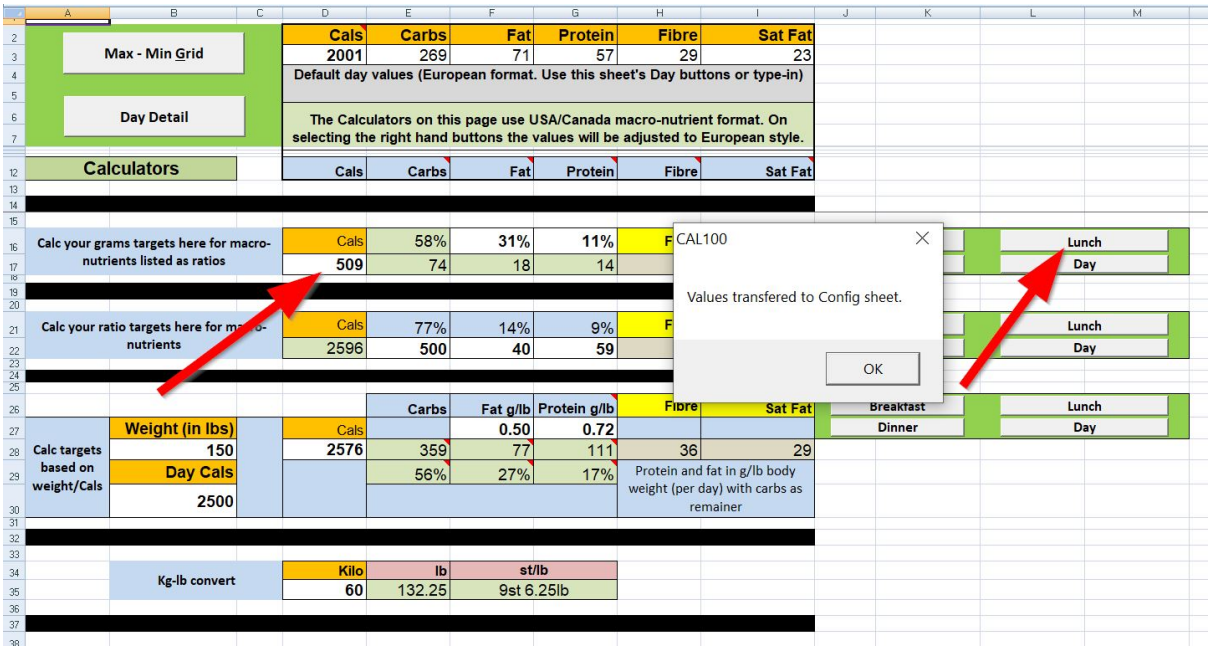
Macro Buttons



The Breakfast, Lunch and Dinner buttons work in a similar way to the Day buttons.

They are, however, used to **transfer** a calculator results to the NEW PLAN section of the *Config* sheet instead of Default Day.

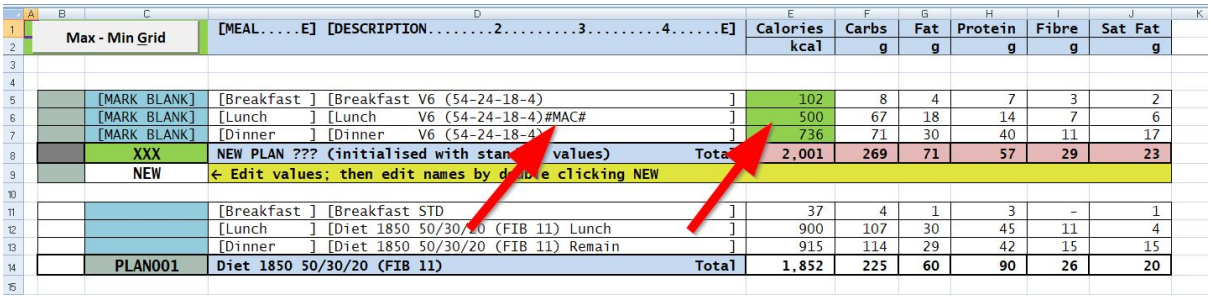
Example:



500 Calories have been set on the top calculator.

- The Lunch button has been clicked.
- The **NO** Option **(Keep Calories)** was chosen to a popup Conversion message.
- The calculator has now bumped up the Calories (509) and the macros slightly to allow for a slight loss on Conversion.
- The values were then converted to a European style and moved to the *Config* sheet.

On *Config* Sheet



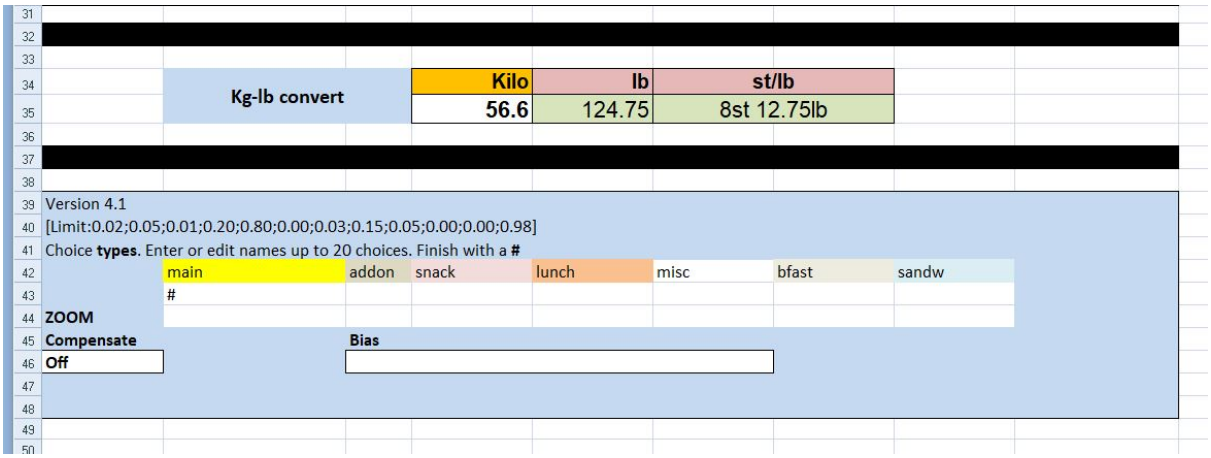
	Max - Min Grid	[MEAL.....E] [DESCRIPTION.....2.....3.....4.....E]	Calories kcal	Carbs g	Fat g	Protein g	Fibre g	Sat Fat g
	[MARK BLANK]	[Breakfast] [Breakfast V6 (54-24-18-4)]	102	8	4	7	3	2
	[MARK BLANK]	[Lunch] [Lunch V6 (54-24-18-4)#MAC#]	500	67	18	14	7	6
	[MARK BLANK]	[Dinner] [Dinner V6 (54-24-18-4)]	736	71	30	40	11	17
	XXX	NEW PLAN ??? (initialised with stan values) Tota	2,001	269	71	57	29	23
	NEW	← Edit values; then edit names by d ble clicking NEW						
		[Breakfast] [Breakfast STD]	37	4	1	3	-	1
		[Lunch] [Diet 1850 50/30/20 (FIB 11) Lunch]	900	107	30	45	11	4
		[Dinner] [Diet 1850 50/30/20 (FIB 11) Remain]	915	114	29	42	15	15
	PLAN001	Diet 1850 50/30/20 (FIB 11) Total	1,852	225	60	90	26	20

- The Lunch entry is now back to showing 500 Calories after Conversion to the European style.
- A marker (#MAC#) has been added to the Lunch line to show the value came from the *Macro* sheet.

See the *Config* Sheet writeup for more information.

Finally: A simple kg to lb converter.

Completes the calculation tools.



Kg-lb convert	Kilo	lb	st/lb
	56.6	124.75	8st 12.75lb

Version 4.1
[Limit:0.02;0.05;0.01;0.20;0.80;0.00;0.03;0.15;0.05;0.00;0.00;0.98]
Choice **types**. Enter or edit names up to 20 choices. Finish with a **#**

	main	addon	snack	lunch	misc	bfast	sandw
	#						

ZOOM
Compensate
Off
Bias

Also

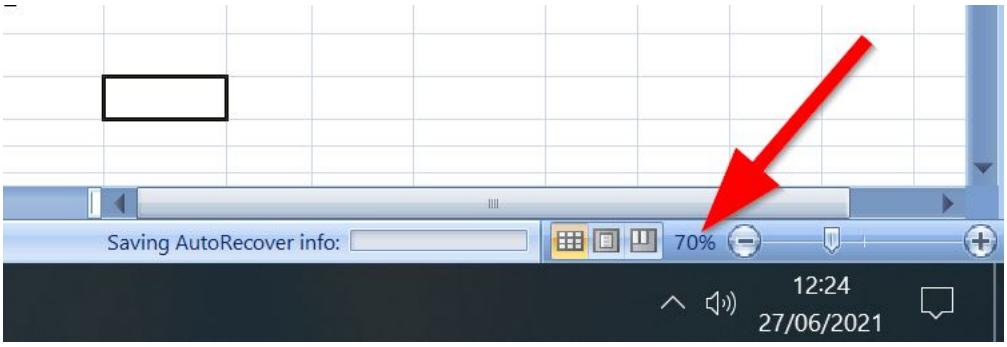
The programme also stores some internally used settings at the bottom of this screen.

1) Settings for *Choice* sheet **types** names can be altered here if needed. Up to 20 choices can be typed in. A # symbol needs to be an end marker. You are free to enter your own colours for the names. These will be used on *Choice* sheet.

2) You will also notice a Limit line. These are the saved values from the *Limits* sheet and should be left alone.

3) **ZOOM Compensate** is a feature which alters the initial look of CAL100 to match the screen resolution of your monitor. Six different styles, including a style for computer tablets, are used.

   You may, however, need to make minor adjustments, particularly to column widths and the **magnify** option on some older monitors.



   Note: This magnify is also called **Zoom** in Excel and is at the bottom right of each worksheet screen. The CAL100 **ZOOM Compensate** feature is turned to **off** if any worksheet Zoom options are changed. Type **ON** (and restart CAL100) to restore this compensate.

   This may be needed if you exchange CAL100 spreadsheets with users who have different monitors.

4) **Bias** This can be filled in to overwrite the Bias formula as used in the *Bias* column of the *Tab100* sheet. An equals sign is automatically prefixed to the formula if not found.

Enjoy doing your mealtime jigsaws!!

Richard Marsden