

Presentation

Dear colleague,

If you are reading this part it means that you have decided to entrust yourself to us to discover this wonderful world that are the ganachè, so thank you so much for the confidence placed.

In This initial presentation we will try to make you understand why the need for the Ganache solution platform and why we decided to create it.

For several years we are talking about chemicalsA applied to pastry and To the preparations that ensue, we have been accustomed to work with the recipes "exploded" for quite some time, what does it mean?

Every time in a recipe we add an ingredient this bring a certain amount of water, sugars, fibers, fats etc...

Getting use to reflect with these percentages we can understand much more of our recipes, improve them and even create new ones. Attention with this we are not saying that you will no longer need to test your own recipes, but certainly parameter to some percentage values will allow you to reduce the number of tests to get to the product that you have always dreamed of.

Ganache solution will allow you to make these steps simpler, more intuitive and have them always within a click. Whenever you fill out a recipe the software tapping into a database of ingredients will tell you how many sugars, fats, dry matter, water, alcohol you are putting into your preparation, also will allow you to manage the food-cost and calorie intake of the preparation.

Let's start now to understand how to manage your ganache solution account, once you have logged in you will have in front of you the page of the recipes pre-inserted and the different icons at the top (recipes; ingredients; settings) Each of these icons will take you to the relative page.

Let's start our "tour" from the ingredients page, the heartbeat of your account. In the ingredients section you'll find a set of pre-loaded ingredients that will already be available for your recipe creation and you can add other quickly and immediately.

On the recipes page you will find pre-inserted recipes and also your own recipe's creation, You can easily view or print them. Always on this page you can start to create your new preparations, copy the existing ones to edit them or print directly the recipes that you need in the lab.

The Settings page will allow you to edit details about your account, view any additional updates or packages, and change the parameters on other pages.

In the information icon you can reread some steps of this guide at any time.

Ingredients:

To be coherent and make your searches easy in the most provided databases, the ingredients are divided based on the following labels:

- Ingredient name: the name in which the ingredient in question will be displayed
- Trade name: the name in which the ingredient is Marketed (may also be the same as the ingredient name)
- Brand: the brand of the company in which the product is distributed (If an ingredient does not have a specific brand this Part can be left without text)
- Category: The "Categories" They are a set of labels that allow you to group the ingredients according to a function in the recipe and they will help you when you have to fill out the recipe. (See categories)

At the top of the page there are filters that, if selected, will allow you to find a specific ingredient by filtering by name, brand or category.

Category:

Liquids	All the ingredients that bring the recipe an important amount of water. Compounds with more than 50% of water in their composition.	Milk, cream, fruit pulp, infusions, aqueous extracts (etc.)
Infusions	The ingredients that are placed inside the recipe as flavouring elements but which are then removed after being left infused. <i>(see "Exclude Ingredient")</i>	Tea, herbal teas, spices in infusion, aromatic herbs, fresh herbs (etc.).
Sugars/Polyalcohols	All sugars classified as simple sugars and the Polyalcohols. The role in a recipe is to give sweetness, Soften the structure and improve the conservative characteristics.	Sugar sucrose, dextrose, fructose, glucose syrups, invert sugars, isomalt, sorbitol, etc.
Chocolates	In this category we find all the products derived from the processing of cocoa beans. Finished chocolates but also the semi-finished products deriving from the cocoa plant.	Dark chocolate, milk chocolate, white chocolate, Gianduaia, cocoa powder (etc.).
Fat	In this family are grouped all the ingredients with a high amount of fat (more than 50%), which have a structuring role for the purpose of cutting and of tasting of the finished product.	Cow butter, anhydrous butter, butteroil, cocoa butter, rice oil, olive oil (etc.).
Alcohol	The ingredients that bring the recipe a quantity of alcohol. All the Liquorose Drinks and syrups Containing alcohol	Pure alcohol, distillates, alcoholic creams, liqueur wine, wine, beer (etc.).
Dried fruit Pastes/pralinés	All products derived from the processing of fruit with shell, such as or added to a part of sugar.	Hazelnut paste, pistachio paste, praline almond, praline hazelnut, marzipan, hazelnut creams (etc.).
Extra	All The ingredients used in the recipes, which are not classifiable in other categories.	Tomato paste, parmesan cheese, soy sauce (etc.)
Self-inserted	The recipes that the user wants to use as a starting point for other preparations. Personal recipes or preparations used as work bases.	Sugar syrup for pralines, eggnog, English cream, (etc.).
Aromas/Additives	All elements that are characterized by an E-number that are not already included in other categories. They tend to require reduced dosages within the recipes.	Citric acid, natural flavors, potassium sorbate, (etc.).

Now that you are informed about how to classify your ingredients you will be able to enrich your database. Simply select the command "add ingredient" to get the screen where you can enter all the necessary parameters. In addition to the names above mentioned you will be asked to enter the percentages of composition of your product that you can find in the technical sheet. Those are available from your supplier or in online tables related to the nutritional values.

Insertion values:

One Once pressed on the command "add ingredient" will appear a table with different boxes to complete, do not panic, let's analyze the values to be inserted.

- **Sugars:** In this box you will need to enter the percentage of sugars contained in your ingredient. In many ingredients it is only sucrose, in some it could be the sum of several sugars. Let's take an example, if you have in your hands a dark chocolate at 64% of total cocoa your sugar value will be $100\% - 64\% = 36\%$ sugars.
- **Fat:** The fats are essential for the melting of the final product and also for the structure that the product will have during the work phases. In this category you are asked, in addition to the fat percentage, to subdivide it, if necessary, into 3 different sub-groups. Oils, the amount of fat liquid at room temperature; Butter, the typical fat of dairy products with a melting temperature close to that of our body; Cocoa butter, solid fat, chocolate content essential to structure your ganache. If for example we had to enter the value of the dairy butter formed by 82% of fat matter we enter the value 82 in the Fat box; Butter.
- **Dry substance:** In this category you will have to include all the complex sugars, the fibers and the defatted part of the dairy products. The amount of dry matter is given by the sum of three values: cocoa solids (the defatted part of cocoa), then the private cocoa value of the fat matter; AMP (anhydrous milk powder) represent the whole non-greasy part of a milk-based product or milk-containing, from their percentage value, the quantity of lactose in the recipe is extrapolated; Other solids the dry matter portion of an ingredient not included in the previous 2 categories (e.g. nuts fiber). If we want to give an example, the insertion of whole milk we will have 87.5% water; 3.5% dairy fat; the remaining 9% will be AMP that just entered give me the value of lactose.
- **Liquids:** In this category you are asked to enter all the values that make up the liquid part of the ingredient. They are divided into water and alcohol according to the type of ingredient that must be inserted. As an example we are going to insert a rum to 38% Vol. Alcohol so our table will be 38% alcohol and 62% water.
- **Other:** Within the label "Other" have been inserted a series of values not fundamental for the balancing of the ganache but can return very useful as additional values to make your recipes.
 - POD, sweetener power: each sugar has its own sweetness index and thus provides a different perception of sweetness in the tasting stage, this (empirical) value can allow you to have an idea of what will be the sweetness of the finished product. Be careful though the sweetness in the elaborate final It is perceived in a different way according to the quantity of cocoa, to particular ingredients, to the presence of crispy elements or of acidity of certain ingredients so this value is a guideline not a certainty. The POD is calculated with a decimal value in hundreds.
 - PAC, anti-freezing power: always the sugars are the mistress for this value, each sugar has the capacity as solute in a solution to slow down the freezing of water at negative temperature values. In the world of ganache this value is not fundamental to the product result, but in other categories of products can become a useful ally. The PAC is calculated with a decimal value in hundreds.
 - Nutritional values, by dividing the value into kcal and kj you can enter the calorie intake of your ingredients.
- **Allergens and food compatibility:** You can quickly select whether the ingredient in question contains dairy products, gluten, nuts, illuminating the icon in case of allergen presence. In the same way you can indicate whether the ingredient is suitable for consumption by people who follow a vegetarian diet or vegan, lighting up the icon in question.
- **Cost:** In this part you can enter the cost of the ingredient (in currency format per kg of product) in order to have a check on the final food cost of your recipe
- **Notes:** In this part you can add notes regarding the ingredient (dosages, specifications, supplier etc...)

Recipes:

We reach now the page where you can experience your recipe and better evaluate your preparations. In This section you will find all the recipes that have already been entered. Also in this case you can use the filters to go to find the recipes that most satisfy you, copy them to make new ones starting from an existing starting base, or simply print out the recipes you want to put into production.

Obviously in our industry the variables of production of a preparation are many and so it's going to be hard for us to guarantee that your recipe will be perfect, but we have study 2 methods to give you the best directions. In the final part of this guide you will find a series of information that allows you to work with reference percentages for the Composition of your recipes. While the Comparison function (see "*Comparing Recipes* ") Allows you at any time to compare the recipe you're writing with a recipe already inserted in the platform.

Subdivision of recipes:

each Of the recipes of ganache solution is divided, always for the purposes of the research, in category, status and author.

- Category: This statement indicates the purpose that your recipe can have, so in which stuffing family is placed. You will manage your categories, you can create as many as you want and you can edit or delete them in the settings part.
- Status: This categorization of recipes as trivial can be very useful in order to manage the printing and comparison of recipes (see "*Comparing Recipes*"). Each recipe in the software is classified according to its result after a practical test, then once you have made the recipe you can change its status to make it suitable for your production. The statuses entered, and recognizable also according to their color are:
 - ✓ Confirmed (green): recipe suitable for production.
 - ✓ Test (Yellow): Recipe that has been prepared but has not yet been put into practice, so there is no practical test.
 - ✓ To improve (red): recipe that, after a test phase, requires some changes (probably included in the notes part of the recipe).
- Author: The author of recipe, in case is your recipe, you will find in the "Author" section your name (deriving from the name of your account) otherwise you can change the name of the author during the compilation of the recipe

Create a recipe:

Pressing on the "Create recipe" command will open a new interface where you can start the drafting of your recipe. In the upper part there are spaces to enter the name, category and status of the recipe, in the table on the left the compilation of the recipe with ingredients and quantities; In the right side a table with 4 different pages (recipe information, process, ingredients detail, photo).

- Recipe information: It will allow you to enter and vary the author in case you need it, visualize the adaptability of the recipe according to intolerances, check the date of last modification and insert notes and notes about the elaborate.
- Procedure: You can write the method to achieve the recipe and then display the print page.
- INGREDIENTS Detail: This screen will become the best friend, it will allow you to monitor the percentage values of the various components of the recipe while you are creating/modifying it.
- Image: Allows the loading of a photo or an image with a maximum of 2 MB of size.

In the underlying part there will be in continuous view a report of the totals of Your recipe, so that you always keep them under control.

Adding ingredients in the recipe:

Once you have compiled the name, category and status of the recipe you will be ready to start building your preparation.

Then proceed with the command "add ingredient" and it will open a side column that will allow you to connect directly to your database. In this case you can type the name of the ingredient, the platform will search that name in all the trade names and ingredients names of your database, or use the filters to reduce your search to a category or to a specific brand.

Once you find the ingredient you are looking for, you just have to press on the Orange arrow to his left to insert it in the recipe, as soon as the name will change its color to remind you that it has already been inserted (in case you have to insert it again simply press the arrow again).

As soon as you have finished inserting the ones you think are the ingredients necessary for your recipe just press the button in the upper right corner to close the column.

If you don't find the ingredient you want to add to your recipe because it is not present in your database within the Insertion column there is a "add new" command that will allow you to open an ingredient compilation page where you can create the new ingredient and, once saved, find it in your recipe and in your database.

Compilation of the recipe:

Once you have decided on the ingredients that make up your recipe you will need to fill the quantity in the white square under the Qty (G.) column. While compiling these quantities we advise you to keep selected the page "ingredient details" This will allow you to see the evolution of your recipe. Entering the ganache solution quantities will draw on your database and recalculate the values of sugars, fats, dry matter, liquids, pods, PAC, kcal and food cost according to the quantity you enter and return their sum so that you can check the Parameters of your recipe.

Parameters to be respected:

It will not be easy to have the ideal recipe for your applications with a look, but over the years we have developed some benchmarks that can be useful as you compile and verify your recipe.

First you have to have well in your head what kind of praline you want to get, so if an anhydrous or hydrated product and what type of consistency will have to be stabilized once. So you have to decide whether you want a soft filling to be inserted in a chocolate shell (printed) or a structured base that allows to be covered (cut). Let's now analyze our components:

- **Sugars:** Within the recipe are fundamental in terms of conservative and structuring. Their presence and typology will guarantee to your fillings duration and softness in the passage of time. But pay attention to their excess could give very soft and far too sweet products in tasting.
- **Fat:** They will adjust the structure of your PRalina once crystallized. The quantity and type of Influid fats on the RocksEvozza of the final product and, in particular the cocoa butter, will be essential for the products that must have a more compact consistency suitable to be cut. In the emulsion phase fats bind to the aqueous part, their excess could make the emulsion phase complex or impossible.
- **Dry matter:** Within this category surely the most important value in our case is "cocoa solids". This value is crucial to define what will be the chocolate scent of the preparation. Its high quantity will indicate a marked cocoa aroma that could prevail over the rest. The cocoa has a strong absorption of liquids, therefore an amount of high dry matter can carry a ganachè with a dry and dry structure.
- **Liquids:** In the family of liquids we have the sum of the percentages of water and alcohol (if present). They are fundamental to understanding what will be the structure and duration of the final product. Where there is water, there is life, consequently bacterial proliferation, A high quantity of water will result in a lesser duration of the ganache. The alcohol, on the contrary, will improve the life Bacteriologica of the product, but will tend to be a strong rammollente and then give much softer products.

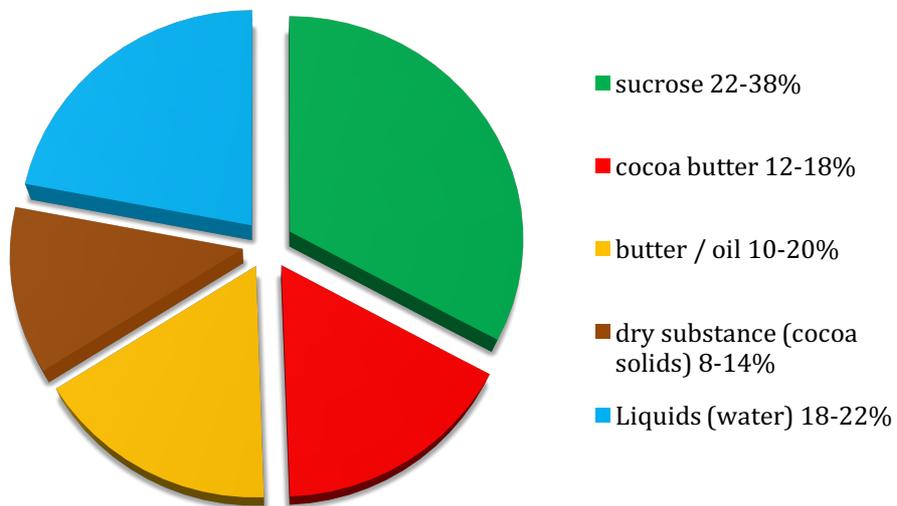
Now that we have quickly analyzed the 4 normalized composition to be aware we can go to understand in what parameters these should be managed.

Molded ganache:

The characteristics of this type of filling are those of having a soft consistency, but not too liquid so this allow the operator to seal the shell with chocolate, but despite having a finished product with characteristics of very accentuated softness. This is a ganache composition that can be used as a guideline:

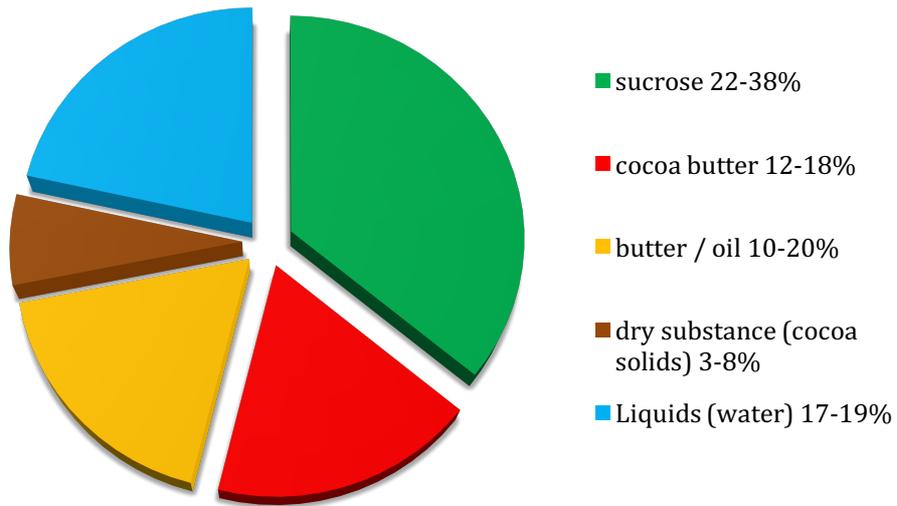
dark molded ganache

	min	max
sucrose	22,00%	38,00%
cocoa butter	12,00%	18,00%
butter / oil	10,00%	20,00%
dry substance (cocoa solids)	8,00%	14,00%
liquids (water)	18,00%	22,00%



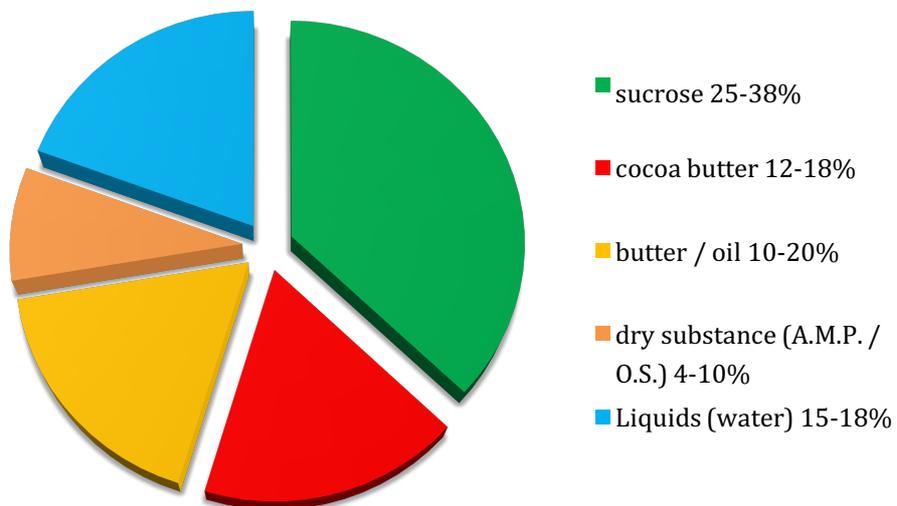
milk molded ganache

	min	max
sucrose	22,00%	38,00%
cocoa butter	12,00%	18,00%
butter / oil	10,00%	20,00%
dry substance (cocoa solids)	3,00%	8,00%
liquids (water)	17,00%	19,00%



white molded ganache

	min	max
sucrose	25,00%	38,00%
cocoa butter	12,00%	18,00%
butter / oil	10,00%	20,00%
dry substance (A.M.P. / O.S.)	4,00%	10,00%
liquids (water)	15,00%	18,00%

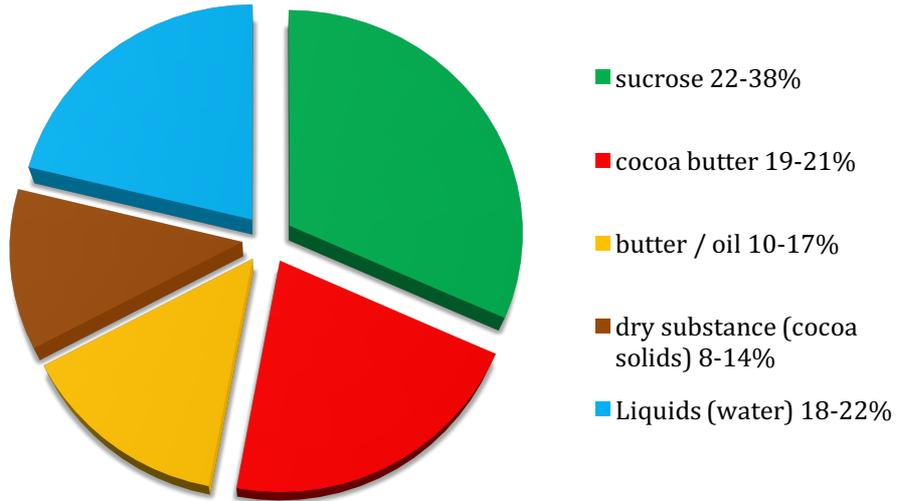


Coated Ganache:

In this type of filling the amount of fats, especially cocoa butter, must be greater. This will cause the ganache, once stabilized, to be solid and compact allowing the operations of cutting and covering. Contrary to the previous version, the type of chocolate used (white, milk or dark) will change the working parameters for an ideal result. Below some compositions that can be used as a guideline for a coated ganache:

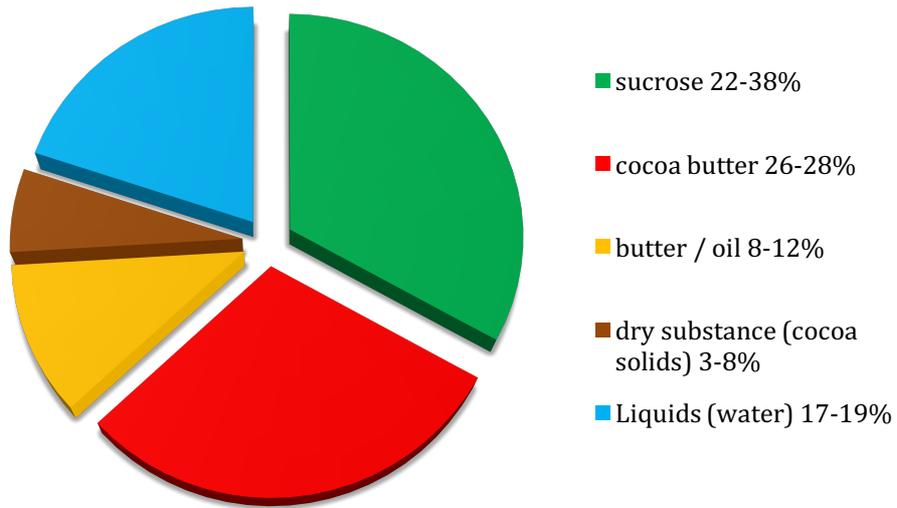
dark coated ganache

	min	max
sucrose	22,00%	38,00%
cocoa butter	19,00%	21,00%
butter / oil	10,00%	17,00%
dry substance (cocoa solids)	8,00%	14,00%
liquids (water)	18,00%	22,00%



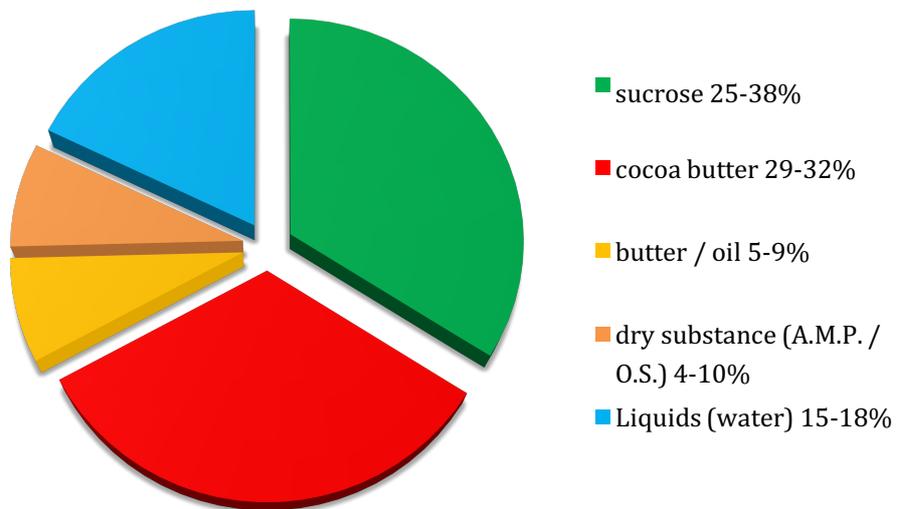
milk coated ganache

	min	max
sucrose	22,00%	38,00%
cocoa butter	26,00%	28,00%
butter / oil	8,00%	12,00%
dry substance (cocoa solids)	3,00%	8,00%
liquids (water)	17,00%	19,00%



white coated ganache

	min	max
sucrose	25,00%	38,00%
cocoa butter	29,00%	32,00%
butter / oil	5,00%	9,00%
dry substance (A.M.P. / O.S.)	4,00%	10,00%
liquids (water)	15,00%	18,00%



Recipe comparaison:

The most difficult thing in writing a recipe “new” is to check if the working parameters you are using are correct. To get this information without tapping into the manual above you can at any time press on the command "open to compare". At the opening of this window the screen will display and give you all the values of your recipe

vertically, in the second and third column you will have the possibility to search the recipes from your database and compare them with your new test recipe.

In the comparison phase you can try to reach the parameters of the recipe saved and approved by you in the past. Let's take a practical example:

If you compose a recipe of coated dark chocolate ganache we can open laterally the recipe of a ganache with the same characteristics so as to display the percentage values of the recipe approved directly to the side of the recipe that we are writing. This will allow us to have some values percentages You can follow and respect knowing that we will be in the right direction.

Action Ingredients:

Inside the recipe editorial page a function has been inserted that allows to activate "extra" functions in the writing phase; It will be enough to press the icon to the side of the inscription "Ingredients action" To open a drop-down command that will allow you to:

- Reorder the ingredients: by pressing on the icon will appear arrows at the side of each ingredient that will allow you to move the ingredients in order to display them in the preferred sequence (this function will be repeated on the print page)
- cooking ingredients ("*Set temperature*"): With this command the software recognizes that a cooking process is expected to evaporate, then a drop-in liquid (example: caramels). By activating this command, the software will require you to select the ingredients that provide a cooking and insert the temperature at which the ingredients are brought. Once selected ingredients and ganache temperature solution it calculates the reduction of liquids automatically restoring the value of sugars, fats and other solids. This value is the result of many practical tests and various types of cooking in the same support. We are perfectly aware that by varying the type of support (size and type of pot), the source of heat generation (induction system, direct fire) and the type of recipe (sugar syrups, jellies, Toffees etc...) there will be variations on what is the lost weight ; So this function wants to be a guideline for all the times where you will need to know how many liquids can remain in your recipe after a baking above 100 °.

Ingredient exclusion:

In the preparation of the recipe thanks to the square icon to the side of the ingredients it will be possible to check the icon to exclude the ingredient from the calculations of sugar, fats, dry substances and liquids.

Thanks to this function we can consider in our recipes all elements in suspension without keeping in mind their value of sugars, fats and solids but considering them as quantities and as presence at the calorie level and costs.

Example: In the realization of a praline with addition of hazelnuts pieces we can insert the weight of the nuts pieces and by checking the lateral command it will automatically exclude in the calculations of fat and fibers content, but included as caloric intake and price of the recipe.

Saving recipe:

We're almost reaching the end! Only a pass away to finalize your recipe.

Once you have prepared your recipe you are ready to save your draft, in the upper right part of the screen you will find the commands dedicated to saving and printing. Regarding the saving you have 2 choices:

- Save recipe: The recipe will be saved in your recipes database and you can tap, copy and edit it or print it directly.
- Save as an ingredient: The recipe will be saved as a recipe in the recipes database, but also as an ingredient in the ingredients database (source "recipe" category "Recipe") and you will be able to draw upon the drafting of any new elaborate directly from the "Add Ingredient" section (Warning: The recipe saved as an ingredient will not be editable in terms of composition values from the ingredients section. If you wish to edit, you will need to open the recipe, modify it and make a new save as an ingredient).

Print Page Setup:

Before you can proceed with the download of your PDF ready to print you are missing only one step, ganache solution gives you the option to choose what you want to see in your recipe and the quantity of your recipe that you want to produce.

By pressing the "Print Page Setup" icon, it will open a new interface where you will be able to choose what to see on your final recipe

On the left side of the screen there will be a series of activation buttons, activating or deactivating the icons related to a function, you choose whether or not to display that information on the print page. For example by selecting the button "commercial name ingredient" It will be possible to visualize the ingredients of the recipe with the generic name (the one set in the ingredient database "instead of the trade name and the brand).

Thanks to the arrow-shaped commands   You can move the ingredients to see them in the order that most meets the needs of the operator or production. For production purpose we could reorder the ingredients in this way: liquids followed by sugars/polyalcohols, followed by chocolates, followed by fats. At the side of the column "Q. Ty%" by pressing on the small box next to "scale" command will open a series of white boxes. Thanks to this function it will be possible, filling in the quantity of product to be used as a basis, Scale the recipe according to a total quantity or depending on the quantity of a single ingredient. For example, we can scale our ganache to 1000g. of finished product or PER 100 g. of a single ingredient such as cream. Once you choose what to visualize and what quantity of product you can proceed with the "preview" command that will provide you with the online PDF ready for download.

Print from Recipes page:

To print the recipes, you are not obliged to open them, but you can set the printout directly from the page of your recipes database.

By selecting the "Print" command, the software will open a window with filters that allows you to select the recipes you want to print. Each recipe is displayed with the category of which it belongs and a sticker corresponding to the color of the state of the recipe (green = confirmed, red = to improve, yellow = test) also thanks to the icon eye-shape  present at the side you can preview the details of ingredients, quantity of the recipe before sending it to print.

Select the various recipes that you want to print ganache solution will open the page setting of the print page that will allow you to choose what to display in the various recipes (selected the first commands are required for all recipes to be printed) and to scale every single recipe for the quantity you want.

Once you choose what to visualize and what quantity of product you can proceed with the "preview" command that will provide you with the online PDF ready for download.

With this last part we can say that we told you what you need to know about ganache solution, now it's up to you to experiment, play and create your own recipes.

You will find updates and upgrades of the platform directly in your account.

We thank you for your trust and hope that you will be able, like us, to find in ganache solution a fundamental tool to manage and implement your production.

We wish you a good continuation on ganache solution.



Alexandre Bourdeaux & Yuri Cestari

