Note by note project
Chèvre fondue with bacon particles

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For this occasion, the note by note main subject is suspensions. According to IUPAC (2014), a suspension is a liquid in which solid particles are dispersed. Usually, fondue is made with Gruyère, Emmental, or another Alpine cheese (Baker, 2018) because of the composition and the tastes that these cheeses contribute. However, it is interesting to explore other flavour paths that can lead to wonderful culinary experiences. This is the reason why I decided to create a Note-by-Note chèvre fondue, with little pieces of Note-by-Note bacon. In line with the subject (suspensions), the fondue is based on liquid ingredients with suspended solids. Moreover, the bacon will be also suspended in the fondue.

To formulate the note by note fondue, the following base recipe was used (Table 1):

Table 1: Normal recipe for chèvre fondue.

Ingredient	Quantity (g)	Percentage (%)
Goat cheese	141.75	17.70%
Heavy cream	235.17	29.37%
White wine	354.88	44.32%
Onion	50	6.24%
Garlic clove	10	1.25%
Salt	2	0.25%
Black pepper	2	0.25%
Herbs	5	0.62%
Total	800.8	100.00%

(Baker, 2018)

Based on the recipe shown in Table 1, the basic composition of each ingredient was researched given as a result the following:

Table 2: Goat cheese composition.

Ingredient	Quantity (g)	Percentage (%)
Water	47.75	46.57%
Fat	27	26.33%
Protein	19.95	19.46%
Salt	1.66	1.62%
Ash	4.45	4.34%
Lactic acid	1.72	1.68%
Total	102.53	100.00%

(Vyhmeister *et al.*, 2019)

Table 3: Heavy cream composition.

Ingredient	Quantity (g)	Percentage (%)
Water	57.3	57.30%
Fat	36.8	36.80%
Protein	2.2	2.20%
Lactose	3.2	3.20%
Ash	0.5	0.50%
Total	100	100.00%

Table 4: White wine composition.

Ingredient	Quantity (g)	Percentage (%)
Water	85.26	85.26%
Ethanol	14	14.00%
Phenolic compounds	0.04	0.04%
Tartaric acid	0.17	0.17%
Lactic acid	0.19	0.19%
Glucose	0.24	0.24%
Salt	0.1	0.10%
Total	100	100.00%

(Lukić *et al.*, 2015)

As a result of the study of each ingredient, a formulation was generated (Table 4). Coconut oil was used, since according to Boateng, *et al*. (2014) this is the oil that contains a fatty acid composition similar to the one of goat cheese (Vyhmeister *et al.*, 2019). Moreover, the wine composition studied by Lukić et al. (2015) was used to define the quantities of ethanol, phenolic compounds, acids, and glucose. Finally, polyethylenes were added to give the elastic properties that fondue usually has.

The process was defined as follows:

1. Mix and homogenize all the powders (whey protein, casein, lactose, acids, glucose, polythylenes, and salt) in a bowl.
2. Mix liquids (water, ethanol, and coconut oil).
3. Mix powders with liquids allowing dissociation of proteins and the polyethylenes to give the elasticity properties.
4. Add the flavours (20 droplets of chapre and 10 droplets of onium).
5. Mix until homogenous.

Table 4: Note-by-note chèvre fondue formulation.

Ingredient	Quantity (g)	Percentage (%)
Water	503.34	69.05%
Coconut oil	123.87	16.99%
Whey protein	4.75	0.65%
Casein	28.01	3.84%
Lactose	7.53	1.03%
Ethanol	49.68	6.82%
Phenolic compounds	0.14	0.02%
Tartaric acid	0.60	0.08%
Lactic acid	3.05	0.42%
Glucose	0.85	0.12%
Polyethylenes	1.00	0.14%
Salt	4.65	0.64%
Chapre flavour	1.00	0.14%
Onium flavour	0.50	0.07%
Total	728.97	100.00%

(Hervé This, 2014)

Regarding the bacon, the same process was followed: composition investigation (Table 5) and then, the note-by-note formulation (Table 6) was generated. Sfumo flavour was added to contribute to the bacon and smoky flavour. The process is as follows:

1. Mix and homogenize all the ingredients.
2. Fry accordingly to the sizes you want.

Table 5: Bacon composition.

Ingredient	Quantity (g)	Percentage (%)
Water	42	42.00%
Fat	47	47.00%
Protein	11	11.00%
Total	100	99.30%

(Mann, 2002)

Table 6: Note-by-note bacon formulation.

Ingredient	Quantity (g)	Percentage (%)
Water	42	41.79%
Oil	47	46.77%
Whey protein	11	10.95%
Sfumo flavour	0.5	0.50%
Total	100.5	100.00%

Finally, the consumer is invited to accompany the chèvre-fondue with bacon with tiny baguette pieces.

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