

Beetroot Tartar Dish by Niamh Barry



Materials and Methods

Materials

Equipment	Brand/Model	Picture
Saucepan x 2	Medium, Heavy Based	
Whisk x 2	Nisbet, Stainless Steel	
Spatula x 2	Vogue High heat	
Microscales x 1	Onebalance CH-1000-BK	
Baking Mat	Silicon	

Mixing Bowls x4	Stainless Steel	
Measuring Jug	Stainless Steel	
Thermomix	Vorwerk TM5-1	
Oven	Electrolux Commercial	
Baking Tray x 3	Standard, Non-Stick	
Clingfilm x 1	PVC, Catering Roll	

Chopping Knife	Dick Knives	
Chopping Board	Genware, High Density	
Slotted Spoon	Molecular Stainless Steel Spherification Spoon	
Pipet	Plastic	
Fryer	GGM Commercial	

Ingredients

Ingredient	Brand/ Contents	Picture
Water	Tap Water	
Beetroot Powder	Beetroot juice (55%) Maltodextrin (SOSA)	
Rain Flavor	Kitchen Laboratory No.14	
Mushroom Flavor	Kitchen Laboratory No. 09	
Herbaceous Flavor	Kitchen Laboratory No. 05	
Salt	Fine, Sea Salt	

Sugar	Gem Sucrose Caster sugar	
Agar	Louis Francois, E406 Agar Gum	
Umami Vegetal	SOSA, yeast extract, maltodextrin	
Potato Starch	Family Elephant 25% Amylose, 75% Amylopectin	
Sodium Alginate	Sosa Ingredients	

Extra Virgin Olive Oil	Oleic Acid 80%	
Citric Acid	TRS Citric Acid	
Orange Coloring	Gel Cake Coloring	
Xanthan Gum	Special Ingredients Xanthan Gum	
Calcium Chloride	MSK Ingredients	

Green Coloring	Gel Cake Coloring	
Horseradish Flavor	MSK Natural Flavor Non-GMO Vegetable Oil	
Yellow Coloring	Gel Cake Coloring	
Rice Flour	Starch Amylopectin and Amylose	
Spirulina	Gamma Linolenic acid Oleic Acid Glycolipids	

Recipes & Costing

Beetroot Tartar

Approx. 8 Portions

Weight in Grams	Ingredient	Description	Cost Per 100g	Cost per Recipe
600	Water	Tap Water	-	-
25	Beetroot Powder	Beetroot juice (55%) Maltodextrin (SOSA)	3.50	0.87
0.25	Rain Flavor	No. 14 Kitchen laboratory	43.00	0.10
0.15	Mushroom Flavor	No.9 Kitchen laboratory	43.00	0.06
0.15	Herbaceous Flavor	No.5 Kitchen laboratory	43.00	0.06
8	Salt	Fine sea salt	0.49	0.04
25	Sugar	Gem Caster Sugar	0.19	0.05
6	Agar	Louis Francois, E406 Agar Gum	8.96	0.54
				€1.72

Method:

1. Bring water, sugar, salt, and agar to the boil and whisk well for 90 seconds.
2. Remove from the heat and add beetroot powder and all 3 flavorings.
3. Whisk well and pour into a squared container.
4. Set for 2 hours.
5. Once set, turn out onto a chopping board and dice into cubes for tartar.

Glass Potato Crisps

Approx. 15 Portions

Weight in Grams	Ingredient	Description	Cost Per 100g	Cost Per Recipe
50	Potato Starch	Family Elephant 25% Amylose, 75% Amylopectin	0.36	0.18
3	Salt	Fine Sea Salt	0.49	0.02
800	Water	Tap Water	-	-
1	Umami Vegetal	SOSA, yeast extract, maltodextrin	0.23	0.01
				€0.22

Method:

1. Bring water to the boil and add potato starch as a slurry. Whisk in salt and vegetal.
2. Continue whisking and cook until mixture has thickened.
3. Remove from heat and cool.
4. Once cooled, spread on a silicon mat and place on a baking tray.
5. Bake at 150C, fan low for 30 minutes.
6. Once baked, it should lift from the baking mat.
7. Deep fry at 170C for 3-4 mins until golden.
8. Drain on paper and serve.

Egg Yolk (Tartar Dressing)

Approx. 20 Portions

Weight in Grams	Ingredient	Description	Cost Per 100g	Cost Per Recipe
475	Water	Tap water	-	-
3	Salt	Fine Sea Salt	0.49	0.01
3.8	Sodium Alginate	Sosa Ingredients	12.93	0.49
50	Olive Oil	Oleic Acid 80%	1.45	2.90
1	Citric Acid	TSR Citric Acid	2.00	0.02
0.2	Herbaceous Flavor	No.5 Kitchen Laboratory	43.00	0.08
2	Orange Coloring	Gel Coloring	1.00	0.02
1.5	Xanthan Gum	Special Ingredients Xanthan Gum	5.40	0.08
500	Water	Tap Water	-	-
3.5	Calcium Chloride	MSK Ingredients	26.50	0.92
				€4.52

Method:

1. Blend 500g of water and calcium chloride and leave to chill.
2. Blend 475g of water, sodium alginate, salt, oil, color, xanthan gum and flavorings and place in the fridge to chill.
3. Place a dosing spoon full of egg yolk, mix into a calcium chloride bath and hold for 30 seconds.
4. Remove and rinse with cold water.
5. Serve on top of tartar as dressing/egg yolk imitation.

Caper Pearls

Approx. 20 Portions

Weight in Grams	Ingredient	Description	Cost Per 100g	Cost Per Recipe
300	Water	Tap water	-	-
3	Sodium Alginate	Sosa Ingredients	12.93	0.39
1	Citric Acid	TSR Citric Acid	2.00	0.02
.2	Herbaceous Flavor	No.5 Kitchen Laboratory	43.00	0.08
2	Green Coloring	Gel Colouring	1.00	0.02
500	Water	Tap Water	-	-
5	Calcium Chloride	MSK Ingredients	26.50	1.32
				€1.83

Method:

1. Blend calcium chloride in 500ml water and refrigerate until use.
2. Blend 300ml of water, sodium alginate, citric acid, flavor and color and leave to hydrate.
3. Drop the sodium alginate mix using a dropper into the calcium chloride bath.
4. Leave for 45 seconds then lift out and rinse with water.

Horseradish ‘Mustard Seeds’

Approx. 25 Portions

Weight in Grams	Ingredient	Description	Cost Per 100g	Cost Per Recipe
5	Agar	Louis Francois, E406 Agar Gum	8.96	0.45
3	Salt	Fine Sea Salt	0.49	0.01
300ml	Water	Tap Water	-	-
2.5	Horseradish Flavor	MSK Natural Flavor Non-GMO Vegetable Oil	79.96	1.99
1	Yellow Coloring	Gel Coloring	1.00	0.01
				€2.46

Method:

1. Bring water to the boil and whisk in agar, salt, and coloring.
2. Continue whisking and boil for 90 seconds.
3. Remove from heat and add horseradish flavor and cool.
4. Once set, blend into a gel in Thermomix.

Herb Leaf Tuiles

Approx. 35 Portions

Weight in Grams	Ingredient	Description	Cost Per 100g	Cost Per Recipe
40	Rice Flour	Starch Amylopectin and Amylose	0.31	0.12
10	Potato Starch	Family Elephant 25% Amylose, 75% Amylopectin	0.36	0.04
30	Water	Tap Water	-	-
0.5	Sodium Alginate	Sosa Ingredients	12.93	0.07
2.5	Spirulina	Gamma Linolenic acid Oleic Acid Glycolipids	1.70	0.05
				€0.28

Method:

1. Blend all ingredients into a paste.
2. Spread on silipat and bake at 160C for 10 mins.
3. Reduce heat and bake at 60C for 15mins.
4. Break into small pieces and place on tartar.

Final Costing per Portion

Dish Component	Price Per Recipe	Portions Per Recipe	Price Per Portion
Beetroot Tartar	€1.72	8	€0.22

Glass Potato Crisps	€0.22	15	€0.02
Egg Yolk	€4.52	20	€0.23
Caper Pearls	€1.83	20	€0.09
Horseradish Mustard Seeds	€2.46	25	€0.10
Herb Tuile	€0.28	35	€0.01
Total Cost Per Portion			€0.67

The above table is a summary of the cost of individual elements of the dish, provided to create the cost of one individual portion. This cost will allow the researcher to determine whether the dish is cost effective as was outlined as a requirement by the assignment brief.



Figure 4: Final dish photographed Week 4

The above photo is a picture of the final NbN dish. This is the final presentation chosen as the most effective for each sensory element of the dish. Each part of the dish is clearly labelled to allow identification of each individual element.

Conclusion

This year's Note-by-note assignment had the brief of reducing production costs and time, reducing calories but mind the flavor. As displayed in the results section of this report, the creation of the

beetroot tartar dish adheres to the requirements of the brief on several different levels. The note-by-note dish is lower in calories, has reduced production costs, uses elements that assist in reducing production time, and the dish still delivers flavor, texture, and visuals that satisfy the consumer.

In terms of reducing the production costs of the note-by-note dish, a few different aspects can be considered. Firstly, the cost of beef currently sits at an incredibly high price. For beef tartar a good cut of beef such as the tenderloin, or fillet. The average cost of beef fillet currently sits at €2.70 per 50g. The Nbn beetroot tartar cost €0.22 per 50g portion, with the entire dish costing around €0.67 per portion. This means that the beef alone for the tartar costs just over 4 times the amount of the entire Nbn beetroot tartar dish costs to make. The significant difference in cost highlights the ability of note-by-note cooking to reduce production costs when creating dishes. Another aspect of reducing production costs that can also be looked at for the dish is the production processes themselves. The recipes for each element of the dish are simple and easy to follow; they are also time efficient and don't require specialist equipment or staff to have special skills. From a labor perspective they cost effective, preparing beef tartar would require butchery skills to prepare the beef correctly, if not it will be tough and unpleasant to eat. Also beef for beef tartar must be consumed within the day it is prepared as the beef oxidizes and is no longer suitable for consumption. This can result in waste; the beetroot tartar once made is not susceptible to a similar fate so would not result in the same level of costly wastage.

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