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Franken'Brott

A Note by Note dish

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ADVANCED MOLECULAR GASTRONOMY TFCS9025

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Introduction

Nowadays, food waste is becoming a global issue and concerns many people. Hervé This is one of them. Inventor of molecular gastronomy, the science that studies the mechanisms of culinary transformations, he is now known for inventing the Note by Note cooking. Note by Note cooking is done by using pure compounds (extract or synthetic) instead of traditional ingredients. Those compounds are often found in a powder form, without water. This enables the powder to stay edible longer than a traditional ingredient and not have to transport water, which is a good way to tackle food waste and the carbon imprint of transporting ingredients, as removing water gives lighter compounds and water can be added in the kitchen instead of being transported. (INRAE Institutionnel 2022)

To create a Note by Note dish, different aspects of the dish have to be determined, as, with this type of cooking, one can determine the texture, colour, flavour and nutritional values of a dish independently from each other. As I am part French and part German, I wanted to combine both cultures into my dish and make a combination that wouldn't be possible with a standard cooking method. For the German part, I used my favourite German dish, Semmelkloß. It is made out of old bread that you rehydrate with milk, knead in a dough and add some eggs. You then put it in a cloth and put it in boiling water until it is cooked. It is traditionally eaten with meat and a thick sauce. For the French twist in that recipe, I decided to go for foie gras, and as it is traditionally eaten with gelatin, I decided to combine both elements and create a gelatin foie gras. To incorporate the fibres, I found that once rehydrated they had a grain-like texture, so I combined them with fig flavour and glucose, as foie gras can be eaten with fig confit. As you traditionally drink wine with both foie gras and Semmelkloß, I decided to give the sauce a red wine flavouring with some added cloves and spices taste. The sauce is to pour hot onto the dish once served, and it will slightly melt the foie gras gelée. For the colouring, I went for the German flag, hence my different elements are black, red and yellow. The dish obtained is not a pure Note by Note recipe, as part of the ingredients used aren't pure compounds, but it is a dish that can be recreated at home for a family meal with a minimum of investment in flavouring. For the recipes with pure compound ingredients, see the Discussion part.

Aim of the assignment

This year's topic for the Note by Note contest is to create an original savoury dice that includes fibres, that are close to Note by Note cooking, and that taste and looks good. As part of the dish needs to hold a dice form, the consistency needed to be hard enough.

Final materials and methods

The recipe described below is for 2 to 3 plates depending on the plating. The ingredients for the "bread" are in Table 1, the gelée de foie gras in Table 2, the fig confit in Table 3 and the spiced red wine sauce in Table 4.

Equipment

- SkyLine Premium oven
- Cooking range
- Fridge at 2°C
- Food processor with a whisk blade
- Salter Ultra Slim Electronic Scale 1063 BKDCDUTSDIR 4621
- Metal bowls of various sizes
- 1L pan

- Cutting board
- Whisk
- Kitchen knife
- Teaspoons
- Disposable rectangular cake pans
- Deep plate
- Small jug

"Bread"

Ingredient	Measures
Strong Wholemeal Flour (Odlums)	200g
Water	425g
Albumin powder	6g
Salt	2g
Bread flavouring (Sosa Alphabet of Flavors 86)	3 drops
Bread crust flavouring (Sosa Alphabet of Flavors 85)	1 drop
Yellow concentrated colouring gel (Cake decoration)	0,4g

Table 1: Ingredients for the "bread"

Recipe for the bread:

- Mix the flavourings, the colouring and the salt with the water
- Pour the water and the albumin powder into a food processor with a whisk blade
- Whip the egg whites in the food processor until firm (~2 mins)
- Continue whipping while slowly adding the flour until everything is mixed
- Pour the mixture into a disposable rectangular cake pan
- Put in the oven at 100°C with medium rotating heat and maximum steam (if your oven doesn't have a program for steam, add a plate with water at the bottom of the oven)
- Take out of the oven after 45 minutes and let cool for 30 minutes
- Cut cubes in the "bread" and hollow out the inside

Gelée de foie gras

Ingredient	Measures
Pork gelatin	7g
Water	200g
Salt	2g
Foie gras flavouring (Sosa Alphabet of Flavors 182)	8 drops
Red concentrated colouring gel (Cake decoration)	0,3g

Table 2: Ingredients for the gelée de foie gras

Recipe for the gelée de foie gras :

- Put the gelatin in a bowl with cold water to rehydrate
- Put the 200g of water in a pan and boil it
- Take the boiled water off the fire
- Wring out the rehydrated gelatin and dissolve it in the hot water
- Stir while adding the rest of the ingredients
- Pour the liquid obtained into a disposable rectangular cake pans
- Let sit in the fridge at 2°C for at least an hour
- Once the jelly is set, unmold and cut into cubes

Fig confit

Ingredient	Measures
High fibre Lepicol	5g
Water	100g
Fig flavouring (Sosa Alphabet of Flavors 142)	25 drops
Smoke flavouring (Sosa Alphabet of Flavors 192)	1 drop
Glucose syrup	3g
Black colouring (MSK-7883)	0,3g

Table 3: Ingredients for the fig confit

Recipe for the fig confit:

- Mix the fibres with the water in a small bowl
- Add the rest of the ingredients and mix thoroughly
- Let sit for at least 5 min for the mix to thicken

Spiced red wine sauce

Ingredient	Measures
Cornflour (Gem)	6g
Water	150g
Salt	2g
Red wine type cabernet flavouring (Sosa Alphabet of Flavors 166)	15 drops
Eug flavouring (Iqemusu)	10 drops
Black colouring (MSK-7883)	0,4g

Table 4: Ingredients for the spiced red wine sauce

Recipe for the spice red wine sauce:

- Put the cornflour and 20g of the water in a small bowl to hydrate the starch
- Pour the rest of the water into a pan
- Add the salt, the flavouring and the colouring to the water in the pan
- Mix the contents of the pan and bring to a boil
- Remove the pan from the heat and add the cornflour and water while stirring
- Pour the sauce into a sauceboat or a small jug

Plating

For the plating:

- Take a deep plate
- Place two different sizes of hollow “bread” cubes
- Add fig confit at the bottom of the holes in the “bread”
- Add a gelée de foie gras cube to the hole in the “bread” to fill it
- Place different sized cubes of gelée de foie gras on the plate
- Place some fig confit in drop form on the plate
- Serve the plate with the hot spiced red wine sauce in the jug

Results

A picture of the plated dish can be seen in Figure 1. When the sauce is poured, the gelée de foie gras melts slightly, creating an interesting visual effect. The texture and the taste of the “bread” are similar to the traditional Semmelkloß, the gelée de foie gras has a strong taste and goes well with the

fig confit. When people tried the dish in an informal sensorial analysis, they appreciated its flavours but weren't too pleased with the sauce. As a lot of sauce was added to the dish for the pictures (see Figure 2), pouring less sauce could be a better idea to be more pleasant in the mouth.

Figure 1:Picture of the plating of the Franken'Brott

Figure 2: Picture of the sauce poured on the Franken'Brott dish

In terms of texture, the "bread" brings softness and chewiness, the fig confit brings a bit of crunchiness, the gel gives an interesting gel texture and the sauce brings smoothness. The contrast between the room temperature dish and the hot sauce is also interesting and adds to the dish's value.

The flavours of the dish blend nicely together and are not too overpowering one another, which could have been a concern as foie gras is not a product that has usually a strong taste.

Discussion

The Franken'Brott dish is not a pure Note by Note dish, as some ingredients were not pure compounds. But it could be achieved using only pure compounds, and it was created using the Note by Note cooking principles. The following part will give the recipes with pure compounds. No information was found on the composition of the Sosa flavourings, except that they are glycerin based (Sosa).

"Bread"

For the bread, pure compounds of flour were not available in the kitchen, so flour was used, but the recipe can be done by exchanging the flour with pure compounds that are in the flour. Wheat flour consists mainly of starch (70 to 75%), contains around 14% of water and between 8 to 11% proteins. The rest are minor components such as enzymes, vitamins and minerals. (Moiraghi et al. 2019)

Important for this recipe is the starch and the gluten network. Starch is a polymeric carbohydrate composed of glucose sugar, it consists of two types of molecules, amylose (20 to 25%) and amylopectin (75 to 80%) (Wikipedia 2022d). Gluten is a protein network making up to 75–85% of the total protein in bread wheat, composed of gliadins (γ and Ω) and glutenins (α and β) (Wikipedia 2022c). The gliadines represent 40 to 45% of the gluten in wheat and the glutenins 55 to 60% of the gluten in wheat (Le gluten des farines — Site des ressources d'ACCES pour enseigner les Sciences de la Vie et de la Terre 2022).

For the calculation in pure compound ingredients shown in Table 5, I considered that the flour used was only made of amylose, amylopectin, gliadin and glutenin. More water might be needed to rehydrate the components.

Ingredient	Measures
Amylose	35g
Amylopectin	140g
Gliadin	10g
Glutenin	15g
Water	425g
Albumin powder	6g
Salt	2g
Bread flavouring (Sosa Alphabet of Flavors 86)	3 drops
Bread crust flavouring (Sosa Alphabet of Flavors 85)	1 drop

Table 5: Pure compound ingredients for the "bread"

The yellow colouring gel is not a pure compound, it contains sugar, glucose syrup, water, and yellow E102, E422, E406, E330 and E202, and it may have an adverse effect on activity and attention in some children (Meilleur du Chef 2022b). As it isn't a pure compound and was only used for the aesthetic of the dish, it is removed from the ingredient list of pure compounds for the "bread".

Gelée de foie gras

The gelée de foie gras was done using pork gelatin, which isn't a pure compound. Gelatin consists of 98 to 99% of proteins, those proteins are different amino acids, predominantly glycine (26 to 34%), proline (10 to 18%) and hydroxyproline (7 to 15%), which together represent around 50% of the total amino acid content. Glycine and proline are the most important for the gelation properties of gelatin.

Other amino acids contribute highly to the gelation, alanine (8 to 11%), arginine (8 to 9%), aspartic acid (6 to 7%) and glutamic acid (10 to 12%). Those are the only amino acids that will be considered for the ingredient list shown in Table 6. (Wikipedia 2022b)

Ingredient	Per cent content in the gelatin	Measures
Glycine	30%	2,1g
Proline	16%	1,12g
Hydroxyproline	15%	1,05g
Alanine	11%	770mg
Arginine	9%	630mg
Aspartic acid	7%	490mg
Glutamic acid	12%	840mg
Water		200g
Salt		2g
Foie gras flavouring (Sosa Alphabet of Flavors 182)		8 drops

Table 6: Pure compound ingredients for the gelée de foie gras

The red colouring gel is not a pure compound, it contains sugar, glucose syrup, water, and red E129, E422, E406, E330 and E202, and it may have an adverse effect on activity and attention in some children (Meilleur du Chef 2022a). As it isn't a pure compound and was only used for the aesthetic of the dish, it is removed from the ingredient list of pure compounds for the gelée de foie gras.

Fig confit

The fig confit is where the fibres are used, as they add a crunchiness that reminds of the fig seeds. The fibre source used is high fibre Lepicol, it is a mix of psyllium husk, inulin and live bacteria (*Lactobacillus* and *Bifidobacterium* strains), it isn't a pure compound. 5g of this product contains 3,7g fibres. Dietary fibres are the portion of food that can't be fully digested by human digestive enzymes. Different types of fibres exist with different properties, such as bulking fibres (cellulose and hemicellulose) that absorb and hold water, viscous fibres (beta-glucan and psyllium) that thicken the faecal mass, fermentable fibres (resistant starch, xanthan gum, and inulin) that feed the bacteria and microbiota of the large intestine. (Wikipedia 2022a)

For the fig confit, the interesting property of the fibre used was its viscosity, so by exchanging the high fibre Lepicol with pure psyllium, the texture should remain the same.

Ingredient	Measures
Psyllium	3,7g
Water	100g
Fig flavouring (Sosa Alphabet of Flavors 142)	25 drops
Smoke flavouring (Sosa Alphabet of Flavors 192)	1 drop
Glucose syrup	3g

Table 7: Pure compound ingredients for the fig confit

The black colouring used is MSK-7883, with sodium sulphate, E151 (brilliant black pn), E102 (tartrazine) and E124 (ponceau 4R) as ingredients. E102 and E124 are illegal in certain countries and products containing them have to be marked with "May have an adverse effect on activity and attention in children". As it isn't a pure compound and was only used for the aesthetic of the dish, it is removed from the ingredient list of pure compounds for the fig confit.

Spiced red wine sauce

Corn flour is starch obtained from the corn grain. It is composed mainly of amylose (15 to 25%) and amylopectin (75 to 85%), structures than unravel once cooked, hence the thickening of the sauce when starch is added. (Paul Malumba et al. 2011)

For the calculation in pure compound ingredients shown in Table 8, I considered that the corn flour used was made of 20% amylose and 80% amylopectin.

Ingredient	Measures
Amylose	1,2g
Amylopectin	4,8g
Water	150g
Salt	2g
Red wine type cabernet flavouring (Sosa Alphabet of Flavors 166)	15 drops
Eug flavouring (Iqemusu)	10 drops

Table 8: Pure compound ingredients for the spiced red wine sauce

The Eug flavouring is made from propylene glycol and pure aromatic note, according to the labelling on the bottle.

The black colouring used is MSK-7883, with sodium sulphate, E151 (brilliant black pn), E102 (tartrazine) and E124 (ponceau 4R) as ingredients. E102 and E124 are illegal in certain countries and products containing them have to be marked with “May have an adverse effect on activity and attention in children”. As it isn’t a pure compound and was only used for the aesthetic of the dish, it is removed from the ingredient list of pure compounds for the fig confit.

Conclusion

Even if the Franken’Brott is not a pure Note by Note dish, it’s a dish that can be done at home with a minimum of material and investment in some flavouring. It’s a dish that can be realized using only pure compounds, but those would be more expensive for households and are not accessible to everyone. Considering that the dish still meets the principles of the Note by Note cooking, I would consider it a Franken’Note by Note dish, a practical Note by Note dish that is easier to do at home but not quite meets the pure compound target of the Note by Note recipes.

Considering that the topic of this year’s Note by Note contest was to create a savoury dice and make use of fibre, the goal is achieved with the Franken’Brott, as the dish holds its shape until being served and uses the fibre texture to recreate the fig crunchiness. The mix of German and French cuisine is one of the main originality of the dish, as well as using different colours and textures in the dish. Considering the taste, the result didn’t quite reach the mark with the sauce but was appreciated without it.

Overall, the Franken’Brott met the aims of the project but would benefit from further cooking trials with pure compounds and a slight adjustment regarding the spiced red wine sauce.

Publication bibliography

INRAE Institutionnel (2022): La cuisine note à note : une cuisine novatrice nourrie de science. Available online at https://www.inrae.fr/actualites/cuisine-note-note-cuisine-novatrice-nourrie-science, updated on 4/25/2022, checked on 5/6/2022.

Le gluten des farines — Site des ressources d'ACCES pour enseigner les Sciences de la Vie et de la Terre (2022). Available online at http://acces.ens-lyon.fr/acces/thematiques/biodiversite/dossiers-thematiques/poacees/la-domestication-du-ble/des-propositions-dactivites-pour-ce-theme/comparaison-des-bles-actuels/le-gluten-des-farines, updated on 5/8/2022, checked on 5/8/2022.

Meilleur du Chef (2022a): Food Colouring Gel - Fat Soluble - Red 100g - Cake Décoration. Available online at https://www.meilleurduchef.com/en/shop/pastry/ingredients/burgundy-red-food-colouring/mfe-food-colouring-gel-red.html, updated on 5/8/2022, checked on 5/8/2022.

Meilleur du Chef (2022b): Food Colouring Gel - Fat Soluble - Yellow 100g - Cake Décoration. Available online at https://www.meilleurduchef.com/en/shop/pastry/ingredients/burgundy-red-food-colouring/mfe-food-colouring-gel-yellow.html, updated on 5/8/2022, checked on 5/8/2022.

Moiraghi, Malena; Sciarini, Lorena S.; Paesani, Candela; León, Alberto E.; Pérez, Gabriela T. (2019): Flour and starch characteristics of soft wheat cultivars and their effect on cookie quality. In *Journal of Food Science and Technology* 56 (10), pp. 4474–4481. DOI: 10.1007/s13197-019-03954-9.

Paul Malumba; Sébastien Janas; Claude Deroanne; Thaddée Masimango; François Béra (2011): Structure de l'amidon de maïs et principaux phénomènes impliqués dans sa modification thermique. In *Biotechnol. Agron. Soc. Environ.* Available online at https://popups.uliege.be/1780-4507/index.php?id=7567.

Sosa: Sosa Food Service Premium, checked on 5/8/2022.

Wikipedia (Ed.) (2022a): Dietary fiber. Available online at http://public.sosa.cat/catalogues/food_service_en.pdf, updated on 9/4/2022, checked on 8/5/2022.

Wikipedia (Ed.) (2022b): Gelatin. Available online at https://en.wikipedia.org/w/index.php?title=Gelatin&oldid=1086506810, updated on 6/5/2022, checked on 8/5/2022.

Wikipedia (Ed.) (2022c): Gluten. Available online at https://en.wikipedia.org/w/index.php?title=Gluten&oldid=1084879829, updated on 4/27/2022, checked on 8/5/2022.

Wikipedia (Ed.) (2022d): Starch. Available online at https://en.wikipedia.org/w/index.php?title=Starch&oldid=1085104329, updated on 4/28/2022, checked on 8/5/2022.

Logbook

MODULE CODE: TFCS9025

MODULE TITLE: Advanced Molecular Gastronomy

STUDENT NAME: Chopin Lucie

FOOD PRODUCT: Franken' Brott

WEEK NO.: 1 **DATE: 28/03/2022**

Weekly Aims and Objectives

Find the recipe for the bread

Find a recipe for the gelatin

Materials and Method (Ingredients, Equipment and Method)

Equipment: Salter Ultra Slim Electronic Scale 1063 BKDCDUTSDIR 4621, SkyLine Premium oven, fridge at 2°C, disposable rectangular cake pans, bowls, spoons, 1L pan, cutting board, kitchen knife, cooking range

Ingredient	Measures
Extra strong bakers flour (Odlums)	200g
Albumin	6g
Water	425g
Bread flavouring (Sosa Alphabet of Flavors 86)	2 drops

Table 9: "Bread" ingredients weak 1

For the "bread" :

- Mix the albumin with the flour
- Add the water while mixing manually until you form a dough
- Add the bread flavouring and knead again
- Put the mixture in a rectangular cake pan
- Cook for 30 minutes in a 100°C oven with water vapour
- Take out of the oven and let cool for 20 minutes
- Cut in cubes and hollow the inside

Ingredient	Measures
Fish gelatin	4g
Water	300g
Foie gras flavouring (Sosa Alphabet of Flavors 182)	3 drops
Green colouring powder	0.2g

Table 10: "Foie gras" ingredients week 1

For the "foie gras" :

- Put the water, the flavouring and the colouring in a pan and mix
- Heat the mix until simmering, take out of the fire and add the gelatin
- Mix until dissolved
- Pour the mix into a rectangular cake pan and let cool in a fridge at 2°C

Results and discussion

The “bread” was not cooked well enough, and the texture was too compact. The taste was bad, the bread flavour wasn’t strong enough and salt was missing.

The gelatin didn’t gel enough, it was too liquid as can be seen in Figure 3. The foie gras flavouring wasn’t strong enough, and salt was missing.

Figure 3: Dish week 1

Conclusions

Working with flavouring is hard to dose, but the “bread” already holds itself and had a nice cube form.

Recommendations for the following week.

Add salt and more flavouring to the dish.

Cook the “bread” longer.

Find a way to make the “bread” fluffier.

Use another gelatin.

Add the fibres.

Add a sauce.

Ingredients are required for the following 2 weeks.

Pork gelatin

Fibres

WEEK NO.: 2 **DATE: 01/04/2022**

Weekly Aims and Objectives

Find the perfect cooking time for the “bread”.

Add more flavouring and salt and taste if it’s better.

Try the recipe for the sauce.

Add fibres to the “foie gras”.

Materials and Method (Ingredients, Equipment and Method)

Equipment: Salter Ultra Slim Electronic Scale 1063 BKDCDUTSDIR 4621, SkyLine Premium oven, fridge at 2°C, disposable rectangular cake pans, bowls, spoons, 1L pan, cutting board, kitchen knife, cooking range, food processor

Ingredient	Measures
Extra strong bakers flour (Odlums)	200g
Albumin	6g
Salt	2g
Water	425g
Bread flavouring (Sosa Alphabet of Flavors 86)	3 drops

Table 11: "Bread" ingredients weak 2

For the "bread" :

- Mix the albumin in the water and whisk with the food processor until the “meringue” is firm
- Add slowly the flour while continuing to mix
- Add the bread flavouring
- Put the mixture in a rectangular cake pan
- Cook for 40 minutes in a 100°C oven with water vapour
- Take out of the oven and let cool for 20 minutes
- Cut in cubes and hollow the inside

Ingredient	Measures
Pork gelatin	10g
Water	315g
Fibres	15g
Salt	0,2g
Foie gras flavouring (Sosa Alphabet of Flavors 182)	4 drops
Red concentrated colouring gel (Cake decoration)	0,2g

Table 12: "Foie gras" ingredients week 2

For the “foie gras” :

- Put the gelatin in a bowl with cold water
- Put all the ingredients except the gelatin in a pan and mix
- Heat the mix until simmering, take out of the fire and add the gelatin
- Mix until dissolved
- Pour the mix into a rectangular cake pan and let cool in a fridge at 2°C

Ingredient	Measures
Starch	15g
Water	200g
Salt	0,3g
Muscat flavouring (Sosa Alphabet of Flavors 164)	4 drops
Black colouring (MSK-7883)	0,2g

Table 13: Sauce ingredients week 2

For the sauce :

- Put all the ingredients except the starch in a pan
- Heat the mix until boiling
- Take off the fire and mix while adding the starch
- Put in a small jug to serve

Results and discussion

The “bread” was cooked better but could use 5 more minutes in the oven. The taste is lacking something.

The addition of fibres to the gelée hindered the gel structure formation, as it absorbed all the water, making the gelée more like a thick gel, as seen in Figure 4. The gelée hadn’t enough foie gras flavouring.

The sauce was too thick and not tasty.

Figure 4: Dish week 2

Conclusions

Although the recipe gets better, it still needs a lot of work.

Including the fibres in the gel is not a good idea.

Recommendations for the following week.

Add the fibres in the ”bread”

Add more flavouring to the “bread” and foie gras gelée.

Change the flavouring of the sauce and make it less thick.

WEEK NO.: 3 **DATE: 04/04/2022**

Weekly Aims and Objectives

Add the fibres in the ”bread”

Improve the flavouring for the “bread” and foie gras gelée.

Change the flavouring of the sauce and make it less thick.

Materials and Method (Ingredients, Equipment and Method)

Equipment: Salter Ultra Slim Electronic Scale 1063 BKDCDUTSDIR 4621, SkyLine Premium oven, fridge at 2°C, disposable rectangular cake pans, bowls, spoons, 1L pan, cutting board, kitchen knife, cooking range, food processor

Ingredient	Measures
Extra strong bakers flour (Odlums)	190g
Albumin	6g
Fibres	10g
Salt	2g
Water	465g
Bread flavouring (Sosa Alphabet of Flavors 86)	3 drops
Beer flavouring (Sosa Alphabet of Flavors 155)	1 drop
Yellow concentrated colouring gel (Cake decoration)	0,4g

Table 14: "Bread" ingredients weak 3

For the "bread" :

- Rehydrate the fibres with 40g of water
- Mix the albumin in the rest of the water and whisk with the food processor until the “meringue” is firm
- Add slowly the flour while continuing to mix
- Add the rest of the ingredients while continuing mixing
- Put the mixture in a rectangular cake pan
- Cook for 45 minutes in a 100°C oven with water vapour
- Take out of the oven and let cool for 20 minutes
- Cut in cubes and hollow the inside

Ingredient	Measures
Pork gelatin	7g
Water	200g
Salt	1,4g
Foie gras flavouring (Sosa Alphabet of Flavors 182)	6 drops
Red concentrated colouring gel (Cake decoration)	0,2g

Table 15: "Foie gras" ingredients week 3

For the “foie gras” :

- Put the gelatin in a bowl with cold water
- Put all the ingredients except the gelatin in a pan and mix
- Heat the mix until simmering, take out of the fire and add the gelatin
- Mix until dissolved
- Pour the mix into a rectangular cake pan and let cool in a fridge at 2°C

Ingredient	Measures
Starch	5g
Water	150g
Salt	3g
White wine type chardonnay flavouring (Sosa Alphabet of Flavors 165)	10 drops
Black colouring (MSK-7883)	0,2g
Glucose syrup	2g

Table 16: Sauce ingredients week 3

For the sauce :

- Put all the ingredients except the starch in a pan
- Heat the mix until boiling
- Take off the fire and mix while adding the starch
- Put in a small jug to serve

Results and discussion

The “bread” was too soggy even if the fibres were rehydrated. The taste was slightly better with the addition of beer flavouring.

The gel did hold itself but didn’t have enough time to form, hence the not perfect cube shapes as can be seen in Figure 5.

The sauce was a bit too thin as the starch sank to the bottom, and the taste wasn’t good.

Figure 5: Dish week 3

Conclusions

The recipe is slowly getting better but the fibres should be on their own and not mixed with another recipe for the dish.

Recommendations for the following week.

Find a way to add the fibres to the dish by themselves.

Thicken the sauce and change the flavouring.

Prepare the gelée at the beginning of the class so that the gel structure has time to form.

WEEK NO.: 4 **DATE: 25/04/2022**

The recipes, results and discussion done in week 4 are the ones described in this report.