



NOTE-BY-NOTE ASSIGNMENT

MODULE CODE: TFPD9022

**MODULE TITLE: Advanced Molecular Gastronomy
TFCS9025: 2021-2**

STUDENT NAME: Linda Adu-Kumi

FOOD PRODUCT: “Khodolets” (vegan chicken jelly)

Table of Contents

| | |
|---|----|
| Table of Contents | 1 |
| INTRODUCTION | 4 |
| “KHOLODETS” VEGAN CHICKEN AND EGGS JELLY/ASPIC | 4 |
| AGAR AS THE MAIN INGREDIENT TO CREATE VEGAN CHICKEN AND EGGS JELLY/ASPIC (NOTE-BY-NOTE COOKING) | 5 |
| AGAR SPHERES (COLD OIL SPHERIFICATION) | 6 |
| INDIVIDUAL COMPONENTS OF THE NOTE-BY-NOTE DISH | 7 |
| SEITAN CHICKEN | 7 |
| COOKED GREEN PEAS | 7 |
| VEGAN BOILED EGG (EGG WHITE AND YOLK) | 8 |
| AIM | 8 |
| OBJECTIVES..... | 8 |
| MATERIALS AND METHOD | 8 |
| NOTE-BY-NOTE GREEN PEAS | 8 |
| INGREDIENTS..... | 8 |
| EQUIPMENT REQUIRED..... | 8 |
| METHOD..... | 8 |
| VEGAN BOILED EGGS (Egg White) | 9 |
| INGREDIENTS..... | 9 |
| EQUIPMENT REQUIRED..... | 9 |
| METHOD..... | 9 |
| VEGAN BOILED EGGS (Egg Yolk) | 9 |
| INGREDIENTS..... | 9 |
| EQUIPMENT REQUIRED..... | 9 |
| METHOD..... | 9 |
| SEITAN CHICKEN SHREDS | 10 |
| INGREDIENTS..... | 10 |
| EQUIPMENT REQUIRED..... | 10 |
| METHOD..... | 10 |
| ASSEMBLY..... | 10 |
| RESULTS..... | 11 |
| DISCUSSION | 11 |
| CONCLUSION | 12 |
| REFERENCES | 13 |
| APPENDIX | 14 |

TABLE OF FIGURES

FIGURE 1: ASPIC WITH CHICKEN AND EGGS 4

FIGURE 2: AGAROSE CHEMICAL STRUCTURE 5

FIGURE 3: SCHEMATIC ILLUSTRATION OF THE GELATION OF AGAR-AGAR 6

FIGURE 4: NOTE-BY-NOTE GREEN PEAS FORMED FROM AGAR IN COLD OIL SPHERIFICATION 7

FIGURE 5: VEGAN CHICKEN ASPIC WITH VEGAN EGGS 11

FIGURE 6: AGAR MOLDED INTO A CUBE 15

FIGURE 7: FIRST ATTEMPT TO ASSEMBLE THE KHOLODETS DISH 18

INTRODUCTION

Food ingredients such as meat, fish, vegetables, or fruits are not used in the Note-by-note cooking method to create dishes, but rather compounds, either pure or in mixtures. An analogy would be that electronic music is not made with trumpets or violins, but rather with pure waves that are mixed into sounds and music (This, 2013; 2014). Molecules make up the main part of living matter. For example, the main molecular compounds in wines are water, ethanol, and tartaric acid, in potato and rice starches, are amylose and amylopectin, and triglycerides are the compounds found in oils (This, 2014).

“KHOLODETS” VEGAN CHICKEN AND EGGS JELLY/ASPIC

Also known as meat jelly, Aspic is savory gelatin made with meat stock or broth and set in a mold to encase other ingredients. Pieces of meat, seafood, vegetables, or eggs are frequently included. Aspic can also be known as “aspic gelée” or “aspic jelly”. Aspic is essentially a gelatinous version of the traditional soup in its most basic form.

“Kholodets” It is very popular in Croatia, Serbia, Poland, Czech Republic, Romania, Moldova, Estonia, Latvia, Lithuania, and Slovakia (called huspenina/studeno), Hungary, Greece, and Ukraine. Russia, Belarus, and Ukraine is typically made by boiling the collagen-rich bones and meat for 5–8 hours to produce a thick and fatty broth. The collagen hydrolyzes into the natural gelatine and is then seasoned with salt, pepper, and other spices. The meat is then separated from the bones, minced, recombined with the broth, and cooled until it hardens into a jelly. “Kholodets” is often served with chrain or mustard.

The dish is served during winter holidays such as the traditional Russian New Year (Novy God) or Christmas meal. However, modern refrigeration allows for year-round production, and “kholodets” are not uncommon on a Russian table in the summer (Wikipedia, 2022).



Figure 1: Aspic with chicken and eggs

AGAR AS THE MAIN INGREDIENT TO CREATE VEGAN CHICKEN AND EGGS JELLY/ASPIC (NOTE-BY-NOTE COOKING)

The vegan chicken aspic and egg will be made almost entirely of agar-agar. Agar-agar is a popular hydrocolloid used in food manufacturing companies and even in the everyday kitchen. The rise in the popularity of agar-agar in food is due to its use for structuring, thickening, and texturizing an aqueous continuous phase. It is permitted for use as a food additive in Europe and has the E- number E406 (EFSA, 2016). Agar-agar has been identified to be a source of high dietary fiber (Chawla and Patil, 2010; Brownlee, 2011).

Agar is a galactose-based heterogenous polysaccharide derived from red algae or *Rhodophyceae* (This,2014). Agar-agar is insoluble in cold water, but it expands significantly, absorbing up to twenty times its own weight in water. At concentrations as low as 0.50 %, it dissolves easily in boiling water and forms a firm gel. At temperatures ranging from 95°C to 100°C, powdered dry agar-agar is soluble in water and other solvents (Agargel). Agar is made up of two components: agarose and agaropectin. Agarose is made up of repeating units of D-galactose and 3,6- anhydrous- L- galactose and has a double-helical structure. Figure 2 is the chemical structure of the agarose polysaccharide. Agaropectin is a nongelling, branched component of agar. Agaropectin may have trace amounts of sulfate half-ester groups and pyruvate 3,6-cyclic acetal groups. Agaropectin also has significant amounts of methyl ether groups present.

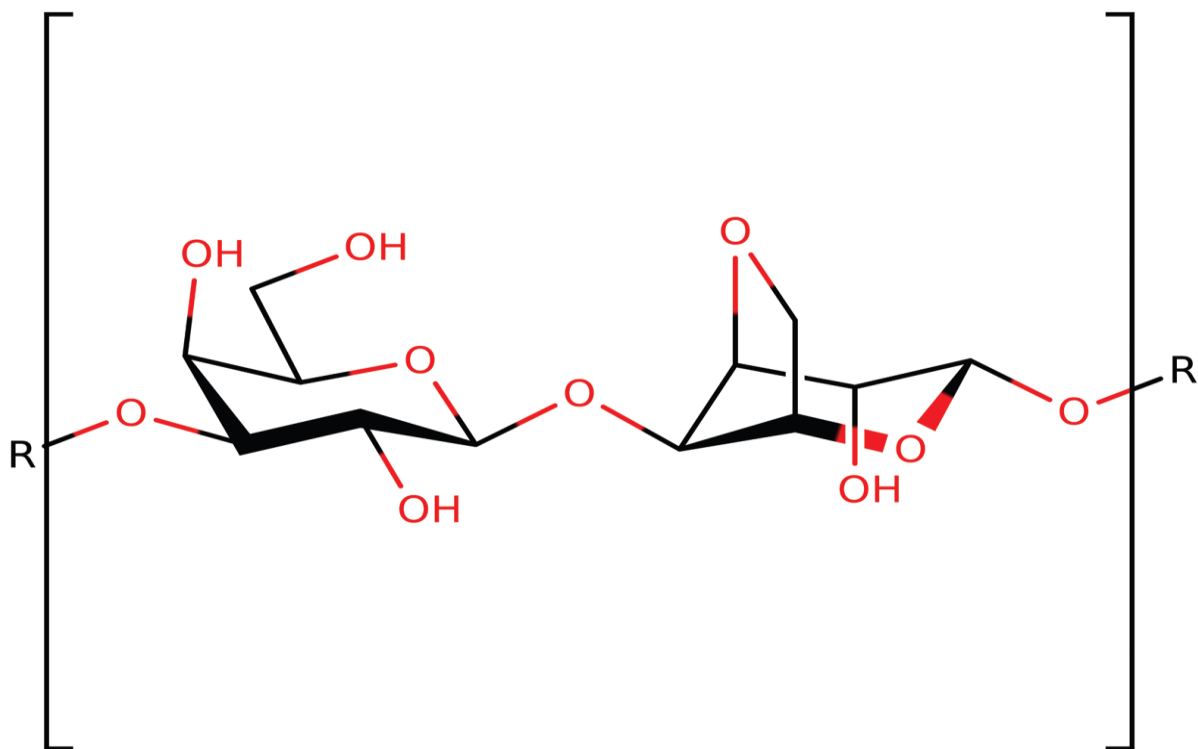


Figure 2: Agarose chemical structure.

Agarose is responsible for the gelling properties of agar-agar. The double helices of agaropectin aggregate to form a three-dimensional structure framework which holds the water molecules within the interstices of the framework. The helix is formed by the equatorial hydrogen atoms on the 3,6-anhydro-L-galactose residues, which constrain the molecule to keep the helical structure. The interaction of the helices causes the formation of the gel. The gels formed are thermo-reversible (Arnotts et al., 1974). Agar has no odor or taste and is frequently combined with other ingredients in foods (Glicksman, 1983).

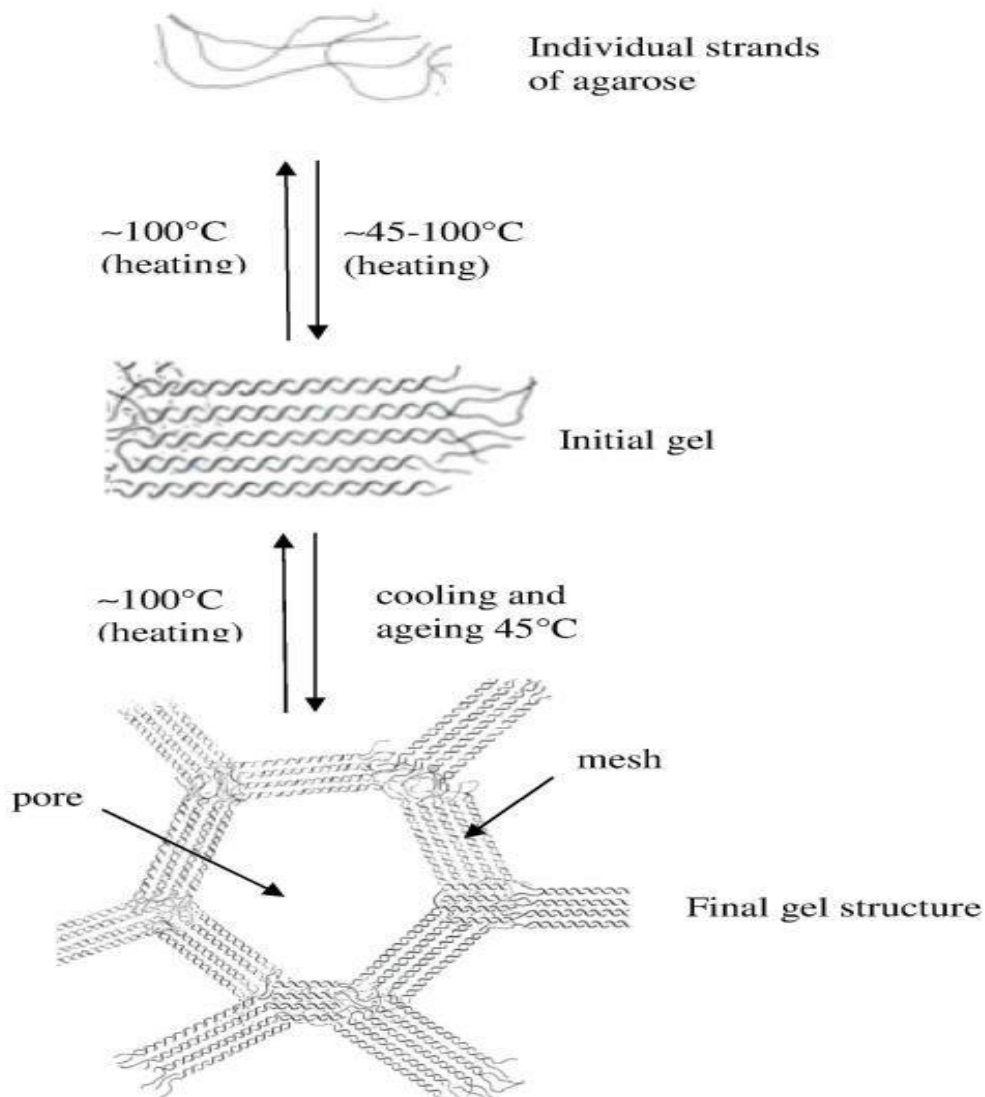


Figure 3: Schematic illustration of the gelation of agar-agar

AGAR SPHERES (COLD OIL SPHERIFICATION)

Hervé pioneered the spherification technique in the kitchen. This method usually entails creating spheres of liquid consistency that are encapsulated by a thin, hydrocolloid gel-like membrane. These spheres can be made in a variety of sizes and from a variety of foods. Chefs refer to the spheres formed as caviar, eggs, gnocchi, and ravioli. When eaten, the flavorful liquid inside the gel membrane explodes, providing the diner with an unforgettable culinary experience. Furthermore, solid moieties can be encapsulated within the liquid center, broadening the culinary horizons (This, 2014). But the spheres made from agar are only like the spheres made with sodium alginate in that they are spherical. The method of spherification that is known as “cold oil” spherification is quite different than the method used for traditional spherification. Cold oil spherification is where you take a gelling agent (most commonly agar) and add it to any flavored liquid or juice then heated to hydrate the agar before dropping little droplets into a container of ice-cold oil. When the droplets hit the cold oil, they will solidify due to the temperature change. It is worth noting that they differ from sodium alginate spheres because you will never have a liquid center. The excess oil is washed off by rinsing in water.

These spheres can be mixed into cocktails or mixed into a warm sauce to give a rather striking appearance.

INDIVIDUAL COMPONENTS OF THE NOTE-BY-NOTE DISH

SEITAN CHICKEN

Gluten is a suspension of two types of water-insoluble proteins, gliadins, and glutenins. Gliadin proteins are relatively small, around 40,000 daltons, whereas glutenins are 10 to 100 times as large, Ruben says. During the mixing process, cysteine residues on the glutenins form disulfide bonds between individual protein units, and this results in a disorganized cross-linked aggregate. The smaller gliadins don't form similar intermolecular bonds but instead are trapped in the glutenin matrix (Bettenhausen, 2013). In addition to the chemistry involved in making seitan, physical manipulation such as stretching it in one direction and compressing it in another during cooking might provide a fibrous structure that mimics meat (Kyriakopoulou et al., 2019)

COOKED GREEN PEAS

Herve described gels as being at the heart of traditional cooking: vegetable and animal tissue are essentially dispersions of a liquid in various solids. Using the formalism, he described gels by the formula L/S, which means a liquid dispersed in a solid matrix. With this ideology, the structure of cooked green peas was achieved by cold oil spherification of hydrated agar with psyllium husk fiber. The psyllium husk fiber was added to provide additional fiber as observed with green peas. The green color was by adding green food color. For the flavor, trans-2- cis- 6- nonadienal, with the characteristic smell of fresh cucumber, and 2- isobutyl-3-methoxy pyrazine, also known as gabazine, are among the most recognizable notes for vegetables. Gabazine smells like green bell peppers and has nutty tones if concentrated and smells like pea and green bean when diluted. Sosa essences of vegetables, green peas aroma, provided the required green peas flavor.



Figure 4: Note-by-note green peas formed from agar in cold oil spherification

VEGAN BOILED EGG (EGG WHITE AND YOLK)

The white color of the boiled egg white was obtained by the addition of oat milk. The refraction of white light by the tiny oil droplets in the oat milk causes the light to scatter all light wavelengths and absorb none, making it appear white. The characteristic sulfur aroma of an egg was obtained by the addition of Sosa Essences of mushrooms-Black truffle aroma. Black truffle aroma has been associated with dimethyl disulfide (DMDS) and dimethyl sulfide (DMS). The cooked egg yolk was a paste made from a mixture of olive oil with maltodextrin (40%).

AIM

To create a vegan meat jelly dish using compounds.

OBJECTIVES

- To form an agar cube
- To form agar spheres
- To form seitan chicken from gluten
- To form vegan egg with agar and maltodextrin
- Conduct sensory analysis on recipes

MATERIALS AND METHOD

NOTE-BY-NOTE GREEN PEAS

| INGREDIENTS | METHOD |
|---|---|
| <ul style="list-style-type: none">• 100g water• 10 g psyllium husk fiber• 3g agar• 250 ml sunflower oil• 2 drops Sosa Green peas aroma (Essences of vegetables)• 2 drops of green food color• Pinch of salt | <ul style="list-style-type: none">• Fill the glass with oil and place it into the freezer at -18°C for 1 hour.• Mix the agar, water, psyllium husk fiber, salt, food color, and green pea flavor into the mixing bowl and mix till homogeneous.• Transfer the mixture into the saucepan and bring to a boil for 5 mins.• Drip the hot liquid using the syringe into the cold oil.• Once all the pearls are made, strain them from the oil and rinse them in water using the strainer. |
| <h4 data-bbox="296 1413 655 1451">EQUIPMENT REQUIRED</h4> <ul style="list-style-type: none">• Genware NEV-17523 Strainer, Stainless Steel, Conical 8.3/4"• Stainless steel mixing bowl• Stainless steel saucepan• Kitchen Syringe• Whisk• Glass• SilverCrest SDL 300 A1 Kitchen Scale | |

VEGAN BOILED EGGS (Egg White)

| | |
|---|---|
| <p>INGREDIENTS</p> <ul style="list-style-type: none">• 200 ml of water• 40 g oats• 2.3 g agar-agar• 2 drops of Sosa Black truffle aroma (Essences of mushrooms) <p>EQUIPMENT REQUIRED</p> <ul style="list-style-type: none">• Genware NEV-17523 Strainer, Stainless Steel, Conical 8.3/4"• Robot Coupe Mini Stick Blender MP240 VV• Non-Stick Easter Egg Silicone Mold• Stainless steel saucepan• Whisk• SilverCrest SDL 300 A1 Kitchen Scale | <p>METHOD</p> <ul style="list-style-type: none">• Blend the oats and the water with the stick blender until smooth.• Strain the liquid using the strainer to separate the liquid from the chaff.• Add the agar and the black truffle aroma to the liquid.• Bring the mixture to a boil for 5 mins• Pour the mixture into the silicone egg mold and refrigerate to set. |
|---|---|

VEGAN BOILED EGGS (Egg Yolk)

| | |
|--|--|
| <p>INGREDIENTS</p> <ul style="list-style-type: none">• 200 g olive oil• 70g maltodextrin, 40%• 2 drops of yellow food color <p>EQUIPMENT REQUIRED</p> <ul style="list-style-type: none">• Stainless Steel mixing bowl• Whisk• SilverCrest SDL 300 A1 Kitchen Scale | <p>METHOD</p> <ul style="list-style-type: none">• Slowly whisk or stir the maltodextrin into the oil until it forms a thick paste |
|--|--|

SEITAN CHICKEN SHREDS

| | |
|--|--|
| <p>INGREDIENTS</p> <ul style="list-style-type: none">• 200 g of gluten• 50g Chickpea flour• 2 drops of garlic flavor• 2 drops of ginger flavor• 2g of monosodium glutamate• 2 drops of chicken flavor• 2 drops of caramel flavor• 2 drops of rosemary flavor• 2 drops of thyme flavor• 2 drops of origan flavor• 200 g oil for frying• 200 g of water• 1 g salt <p>EQUIPMENT REQUIRED</p> <ul style="list-style-type: none">• Stainless Steel mixing bowl• Kneading board• Stainless Steel Saucepan• Spatula• SilverCrest SDL 300 A1 Kitchen Scale | <p>METHOD</p> <ul style="list-style-type: none">• Put the gluten, the chickpea flour, and water into the mixing bowl. Mix till the dough becomes elastic. Knead the dough into a long rope. Divide into 3 long ropes and braid the ropes firmly. Tie the braided dough into 3 loops and let it rest for 10 minutes.• Fry the braided dough under medium heat till golden brown.• Add 200 ml of water into the saucepan then add all the flavors including the msg and salt to form a chicken stock.• Cook the fried dough in the chicken stock under low heat until it simmers.• Take Seitan chicken out and shred with hands. <p>NB. According to the product specification from Sosa. Arome Range, the dose of the flavors is 2g per 1kg = 70 drops.</p> <p>The total weight of the ingredients is 215g hence a maximum of 15 drops of all the Sosa Arome Range flavors is required for the dish.</p> |
|--|--|

ASSEMBLY

- With the remaining chicken stock from the seitan chicken, hydrate 1.5 g of agar with 0.25 g of xanthan gum by boiling the stock with the agar and xanthan gum for 5 mins.
- Put the shredded chicken in the base of the non-Stick Square Baking Silicone Mold.
- Pour the hydrated agar into $\frac{1}{4}$ of the mold.
- Freeze for 5 mins to set. Add the vegan green peas and the melted agar to form the second layer and set by freezing.
- Finally, add the vegan boiled eggs and the final layer of agar and freeze to set.

RESULTS

The assembled product is shown in figure 5 below. The achievement of the final product is an indication of the vision of Note-by-note cooking; to prepare food from molecules or compounds. Traditionally, this dish takes hours to make (about 5 hours to cook the meat to make the gelatine available) but using note-by-note cooking, it takes about 1 hour to 1 hour 30 minutes to assemble the whole dish.



Figure 5: Vegan Chicken aspic with vegan eggs

Sensory evaluation of the appearance, flavor and texture of the dish was performed. 14 participants undertook the sensory evaluation. The results of the sensory evaluation are shown in appendix A. For the texture, about 80% of the participants agreed that the texture was like that of gelatine. For the appearance, about 60% were happy with the appearance of the dish with the remaining 40% not very satisfied. Overall, 80% of the participants, accepted the dish.

DISCUSSION

The dish is a high source of dietary fiber due to the use of agar. The texture is like gelatine gels may be due to the addition of xanthan gum to the agar before hydration. This caused the agar gel to be more elastic like a gelatine gel and not as crumbly as a normal agar gel will be. The appearance of the dish received low scores during the sensory evaluation because the final layer of the cube which contained the vegan eggs did not fully set before the plating and presentation of the dish. Overall, the dish was accepted by 80% of the participants. The dish was very flavourful, and the flavor greatly resembled the flavor of the chicken stock.

CONCLUSION

Hervé This, believed that if the world cooked with chemical compounds, it could help improve global food security. He also envisions a time when households will replace spice racks with cupboards of glucose, piperine, amylose, tartaric acid, and other compounds that will be available in supermarkets. The future of food may be cooking with chemical compounds (Chandran, 2018).

The successful recreation of this dish using compounds is an attestation to this truth. The process of making the dish wasn't as time consuming or energy consuming as the traditional dish. Additionally, the use of agar to make the gel adds additional nutritional benefits of dietary fiber. The dish is also a hundred percent vegan although it may not be suitable to people with gluten insensitivity.

Making the dish gluten free may be a future scope which can be explored. In this way, the dish will be nutritious and suitable for everyone.

REFERENCES

1. Agargel. <http://www.agargel.com.br/agar-tec-en.html>
2. In the naArnott, S., Fulmer, A.S.W.E., Scott, W.E., Dea, I.C.M., Moorhouse, R. and Rees, D.A., 1974. The agarose double helix and its function in agarose gel structure. *Journal of molecular biology*, 90(2), pp.269-284.
3. Brownlee, I.A., 2011. The physiological roles of dietary fibre. *Food hydrocolloids*, 25(2), pp.238-250.
4. Chandran, N (2018). The future of food may be cooking with chemical compounds. *CNBC Food & Beverage*. Available at: <https://www.cnn.com/2018/06/29/note-by-note-cuisine-can-boost-food-security-herve-this.html>. Accessed on 09.05.2022
5. Chawla, R.P.G.R. and Patil, G.R., 2010. Soluble dietary fiber. *Comprehensive reviews in food science and food safety*, 9(2), pp.178-196.
6. EFSA Panel on Food Additives and Nutrient Sources added to Food (ANS), Mortensen, A., Aguilar, F., Crebelli, R., Di Domenico, A., Frutos, M.J., Galtier, P., Gott, D., Gundert-Remy, U., Lambré, C. and Leblanc, J.C., 2016. Re-evaluation of agar (E 406) as a food additive. *EFSA Journal*, 14(12), p.e04645.
7. Glicksman, M., 1983. Red Seaweed extracts (agar, carrageenans, and furcellaran). *Food hydrocolloids*, 2, pp.73-113.
8. Kyriakopoulou, K., Dekkers, B. and van der Goot, A.J., 2019. Plant-based meat analogues. In *Sustainable meat production and processing* (pp. 103-126). Academic Press.
9. This H. 2013. Molecular gastronomy is a scientific discipline and note by note cuisine is the next culinary trend. *Flavour*. <https://doi.org/10.1186/2044-7248-2-1>.
10. This H. 2014. *Note-by-note cooking: the future of food*. New York: Translated by Malcolm DeBevoise. Columbia University Press.
11. Wikipedia Contributors (2022). Aspic. [online] Wikipedia. Available at: <https://en.wikipedia.org/wiki/Aspic> [Accessed 29th April. 2022].

APPENDIX

LOGBOOK

WEEK NO.: ONE

DATE: 28.03.2022

Weekly Aims and Objectives

AIM

To prepare the vegan “Khodolets” agar gel.

OBJECTIVES

1. Form the agar gel with similar elasticity as gelatine gels by adding xanthan gum
2. Create the flavor of the gel by adding flavor compounds
3. Create the color of the gel by adding coloring agents.

Materials and Method (Ingredients, Equipment, and Method)

| | |
|---|--|
| <p><i>INGREDIENTS</i></p> <ul style="list-style-type: none">• 200 g water• 12 g agar-agar• 1 g of salt• 1 gram of salt• 2g xanthan gum• 2 drops of bread crust flavor (Sosa Arome bread curst)• 2 drops of red or green food color• 2 drops of chicken flavor• 2 drops of onion flavor• 2 drops of garlic flavor• 2 drops of curry flavor | <p><i>EQUIPMENT</i></p> <ul style="list-style-type: none">• Saucepan• Whisk• Bowl <p><i>METHOD</i></p> <p>Mix all the ingredients in the bowl with the whisk. Transfer the mixture into a saucepan bring to a boil for 2 mins</p> <p>NB. According to the product specification from Sosa. Arome Range, the dose of the flavors is 2g per 1kg = 70 drops.</p> <p>The total weight of the ingredients is 215g hence a maximum of 15 drops of all the Sosa Arome Range flavors is required for the dish.</p> |
|---|--|

Results and discussion

RESULT

Appearance

The color of the dye was evenly distributed throughout the gel matrix.

There were lumps formed from the xanthan gum which gave the cube a rough texture.

The gel was elastic and not as brittle as a gel made from only agar will look like

The gel formed was hard to mold and set.

Flavor

The bread crust flavor was used instead of the monosodium glutamate to give the food an umami flavour



Figure 6: Agar molded into a cube

Without the MSG, the dish's base flavor, the umami flavor couldn't be achieved. It was very difficult to mix the xanthan gum into the water. The xanthan gum formed lumps in the solution as shown in figure 1 below.

The bread crust flavor was able to provide a similar note as the basmati rice odor.

The gel formed from the agar wasn't hard enough.



Xanthan
gum lump
formed

Figure 2: Agar gel showing xanthan gum lump

Conclusions

The recipe was successful without amylase. The pasteurization step required heating the oat milk wasn't done because without the enzyme amylase, the oat starch will gelatinize and make the drink slimy. The vanilla flavor wasn't liked very much and other flavor profiles need to be explored.

Recommendations for the following week.

- Use a hand blender to mix the ingredients to ensure uniform mixing of the xanthan gum.
- Reduce the amount of agar used to form the gel

WEEK NO.: TWO

DATE: 04.04.2022

Weekly Aims and Objectives

AIM

- To prepare seitan chicken dispersed in the agar gel

OBJECTIVES

1. Create the seitan chicken
2. Assemble the “kholodets” with the chicken inside the gel

Materials and Method (Ingredients, Equipment, and Method)

SEITAN CHICKEN

| | |
|---|--|
| <p><i>INGREDIENTS</i></p> <ul style="list-style-type: none">• 200 g of gluten• 50g Chickpea flour• 2 drops of garlic flavor• 2 drops of ginger flavor• 2g of monosodium glutamate• 2 drops of chicken flavor• 2 drops of caramel flavor• 2 drops of rosemary flavor• 2 drops of thyme flavor• 2 drops of origan flavor• 200 g oil for frying• 200 g of water <p><i>EQUIPMENT REQUIRED</i></p> <ul style="list-style-type: none">• Stainless Steel mixing bowl• Kneading board• Stainless Steel Saucepan• Spatula• SilverCrest SDL 300 A1 Kitchen Scale | <p><i>METHOD</i></p> <ul style="list-style-type: none">• In a large mixing bowl, add all the dry ingredients and mix well. Then add all the liquid ingredients.• With your hands, knead the dough for at least 5 minutes, to get the gluten to activate and for the dough to start forming and becoming stretchier. The longer the knead for, the chewier and denser it will become.• Cut the dough and mold it into rectangular sheets.• Fry the pieces till brown.• Let it cool and cut into small pieces <p>NB. According to the product specification from Sosa. Arome Range, the dose of the flavors is 2g per 1kg = 70 drops.</p> <p>The total weight of the ingredients is 215g hence a maximum of 15 drops of all the Sosa Arome Range flavors is required for the dish.</p> |
|---|--|

AGAR GEL CUBE

| | |
|--|--|
| <p><i>INGREDIENTS</i></p> <ul style="list-style-type: none">• 200 g water• 8 g agar-agar• 1 g of salt• 1 gram of salt• 1 g xanthan gum• 2 drops of Sosa Arome bread curst aroma• 2 drops of red or green food color• 2 drops of Sosa Essences of meat and animals, chicken fond flavor• 2 drops of Sosa essences of vegetables, raw onion flavor• 2 drops of Sosa essences of vegetables, fried garlic flavor• 2 drops of Sosa essences of spice, curry flavor | <p><i>EQUIPMENT</i></p> <ul style="list-style-type: none">• Saucepan• Whisk• Bowl <p><i>METHOD</i></p> <p>Mix all the ingredients in the bowl with the whisk. Transfer the mixture into a saucepan and bring to a boil for 2 mins</p> <p>NB. According to the product specification from Sosa. Arome Range, the dose of the flavors is 2g per 1kg = 70 drops.</p> <p>The total weight of the ingredients is 215g hence a maximum of 15 drops of all the Sosa Arome Range flavors is required for the dish.</p> |
|--|--|

Results and discussion



Figure 7: First Attempt to assemble the Kholodets dish

The agar cube was too hard and did not resemble the “Kholodets” gel.

The Seitan chicken formed was chewy too. Although it tasted like chicken, it couldn't form the characteristic chicken fibers.

Conclusions

The dish was successfully assembled with the vegan chicken inside the cube.

Recommendations for the following week.

- Reduce the agar amount
- Cook the chicken in a liquid or broth after frying

Weekly Aims and Objectives

To evaluate the formation seitan chicken shreds to mimic chicken fibers

SEITAN CHICKEN SHREDS

| | |
|--|--|
| <p><i>INGREDIENTS</i></p> <ul style="list-style-type: none"> • 200 g of gluten • 50g Chickpea flour • 2 drops of garlic flavor • 2 drops of ginger flavor • 2g of monosodium glutamate • 2 drops of chicken flavor • 2 drops of caramel flavor • 2 drops of rosemary flavor • 2 drops of thyme flavor • 2 drops of origan flavor • 200 g oil for frying • 200 g of water • 1 g salt <p><i>EQUIPMENT REQUIRED</i></p> <ul style="list-style-type: none"> • Stainless Steel mixing bowl • Kneading board • Stainless Steel Saucepan • Spatula • SilverCrest SDL 300 A1 Kitchen Scale | <p><i>METHOD</i></p> <ul style="list-style-type: none"> • Put the gluten, the chickpea flour, and water into the mixing bowl. Mix till the dough becomes elastic. Knead the dough into a long rope. Divide into 3 long ropes and braid the ropes firmly. Tie the braided dough into 3 loops and let it rest for 10 minutes. • Fry the braided dough under medium heat till golden brown. • Add 200 ml of water into the saucepan then add all the flavors including the msg and salt to form a chicken stock. • Cook the fried dough in the chicken stock under low heat until it simmers. • Take Seitan chicken out and shred with hands. <p>NB. According to the product specification from Sosa. Arome Range, the dose of the flavors is 2g per 1kg = 70 drops.</p> <p>The total weight of the ingredients is 215g hence a maximum of 15 drops of all the Sosa Arome Range flavors is required for the dish.</p> |
|--|--|

Results and discussion

The seitan chicken was very flavorful and resembled chicken fibers. The frying of the dough created an external barrier which helped the flavour to be retained in the chicken. The texture of the seitan was not as hard.

Conclusions

The seitan chicken recipe was successful and would be replicated in the final dish

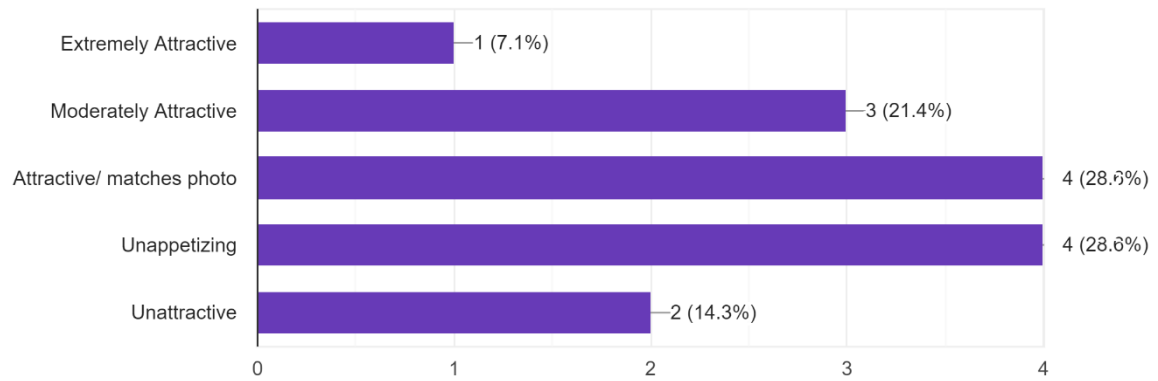
Recommendations for the following week.

Prepare all the other aspects of the dish and assemble all together

The aims, objectives, materials, methodology, discussions for this week are presented in the report above. Below are the sensory evaluation results.

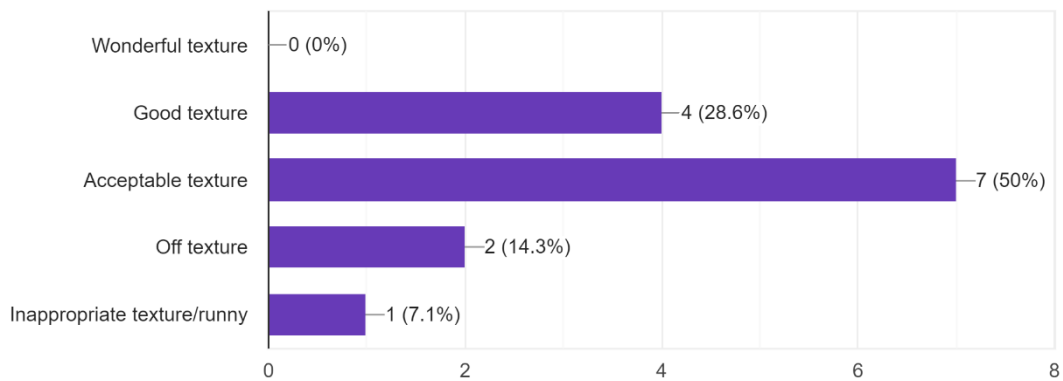
Select one rating from the list below for the Appearance

14 responses



Select one rating from the list below for the Texture/Consistency

14 responses



Select one rating from the list below for the Overall Acceptability

14 responses

