Date

Expt. No. 01 Stages of Sugar cookery Page No. 2

Aim:- To perform the experiment and identify the stages of sugar cookery

Principle:- Making sugar syrups and caramel always begins with heating and melting ordinary granulated sugar and recrystalizing it according to need. During the heating process the sugar first dissolves into syrup. As the temperature gets higher the syrup begins to thicken. As the temperature continues to rise and the water evaporates, the sugar begins to caramalize and turn a darker.

Procedure:- Stages of sugar cookery as long as there is a lot of water in the syrup mixture the temperature will not raise much above the boiling point. As the water begins to evaporate the temperature of the syrup continues to rise. when most of the water has evaporated the temperature of the syrup will begin to rise rapidly. At 320°F there is no water left, the sugar to decrease. The hotter the caramel gets the darker it becomes, and the deeper and less sweet the flavour becomes.

Teacher's Signature

Candy preparation:- Candy making is the preparation of candies and sugar confections. Candy making includes the preparation of many various candies, such as hard candies, jelly beans, gumdrops, taffy, liquorices, cotton candy, chocolates truffles, dragees, fudge, caramel candy and toffee.

Candy is made by dissolving sugar in water or milk to form a syrup, which is boiled until it reaches the desired concentration or starts to caramalizes. The type of candy depends on the ingredients and how long the mixture is boiled.

Formally the sugar syrup undergoes 6 distinct stages:-

1) Thread stages
2) Ball stages
3) soft crack stage
4) Hard crack stage
5) Liquid stage
6) burnt stage.

Thread stage:- Thread stage is a cooking term meaning that sugar syrup being heated has reached 106-116°C [223-234F]. It is a test of how hot sugar syrup is, and of

much water is left in it.
At this point of heating, the sugar concentration in the syrup is 80%. It is tested by dropping a small amount of the sugar syrup from a spoon into a cup of cold water. If the stage has been reached, the syrup will form fine threads or dump for you at the bottom of the glass instead of merely dissolving away in the water instantly. The thread stage is called for in recipes for syrups, fruit liquers and some icing.

Soft-Ball stage:- Soft ball is a cooking term meaning that sugar syrup being heated has reached 112-116°C [234-240F] It is a test of how hot sugar syrup is and how much water is left in it. At this point of heating, the sugar concentration in the syrup is 85%. To test this stage a small amount of sugar syrup could be dropped from a spoon into a cup of cold water. If the stage is been reached, the syrup will come together and briefly form a soft ball or more accurately, a soft clump with bit of height to it. If the clump takes out of the water, it will hold it shape for a short while then start to flatten back down further. The soft ball stage is used in making fudge, fondant,

Teacher's Signature

pralines, peppermint creams, Italian meringue, butter-creams etc.

Firm Ball stage:- firm ball stage is a cooking term meaning that sugar syrup being heated has reached 118-121°C [245-250F]. It is a test of how long hot sugar syrup is, and of how much water is left in it. At this point of heating, the syrup concentration in the syrup is 87%. To test this stage when a small amount of the sugar syrup dropped from a spoon into a cup of cold water, the syrup will form a firm ball or a firm clump. The ball when taken out of the water, will hold its shape, but it is very pliable. The firm-ball stage is called for in recipes for caramels, nougats, taffy, etc.

Hard-Ball stage:- Hard ball stage is a cooking term meaning that sugar syrup being heated has reached 121-130°C [250-266F] It is a test of how long hot sugar syrup is, and of how much water is left in it. At this point of heating, the sugar concentration in the syrup is 92%. If it is pressed down it will hold its shape, even after taking it out of the water and it will hold its shape.

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Soft-Crack stage: Soft crack stage in a cooking term meaning that sugar syrup being heated has reached 132-143°C [270-290F]. At this point of heating, the sugar concentration in the syrup is 95% which could be tested by dazzling a small amount of the sugar syrup from a spoon into a cup of cold water. If the stage has been reached, the syrup will form pliable thread that will bend a bit before cracking sound is heard.

Hard crack stage:
Hard crack stage is a cooking term meaning that a sugar syrup being heated has reached 149-154°C [300-310F]. The sugar concentration at this stage is 99%. If this sugar stage has been reached the syrup will form threads. It may actually hear cracking and be alarmed that its the glass cracking, but it is the sugar.

Clear liquid-brown liquid caramel:
At the temperature 320-360°F all the water is boiled away, the remaining liquid is amber in colour. Sugar will start to become more transparent and will change colour, ranging from light

Teacher's Signature

golden brown to dark amber

Burnt sugar:- Above 350°F the sugar begins to burns and develops a bitter, burnt taste.

Observation:-

We observed the different sugar Jaggery stages i.e, Thread stages, Ball stages, Soft crack stages, Hard crack stages, Liquid stage and burnt stage.

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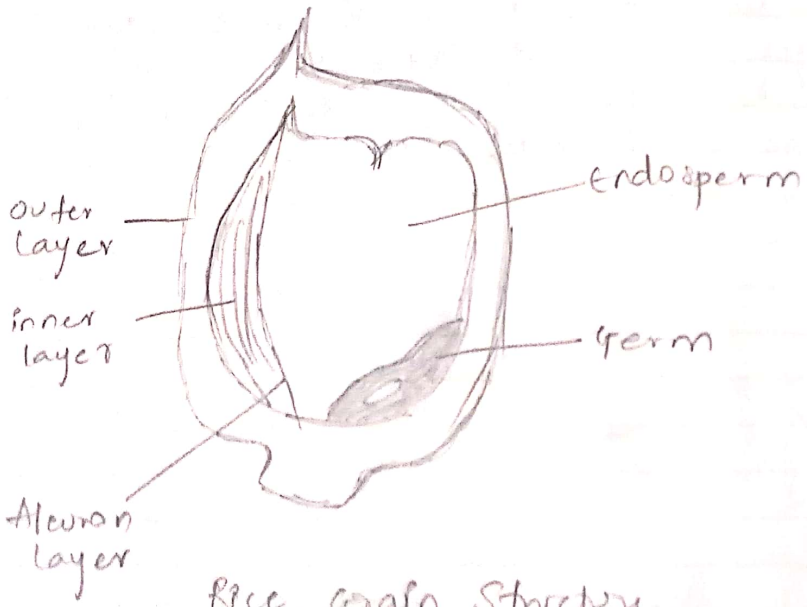

Rice grain Structure

Date

Expt. No. 02 — CEREALS — Page No. 8

Introduction:-

→ Cereals grains are the fruit of plants belonging to the grass family [gramineae]

→ Cereals are the plants which yield edible grains and includes rice, wheat, corn, barely & oats

→ Cereals are usually starchy pods or grains, are the most important group of food crops in the world named after the Roman goddess of harvest ceres

→ Cereals grains provide the world the majority of its food calories and about half of its protein. They are also good sources of micronutrients such as calcium, iron and vitamins of group 'B'

→ Cereals are easy to store because of low moisture content, easy to handle and provides varieties of diet

→ The ease with which grains can be produced & stored together with the relatively low cost & nutritional contribution has resulted in widespread use of cereal foods. They are the staple food in the diets of most population groups

Teacher's Signature

Date _____

Expt. No. 02 CEREALS PREPARATIONS Page No. 9

Aim:- To prepare and give the nutritional significance of different recipes prepared using cereals

Principle:- We prepare different products by using wheat and rice that comes under cereals.

Procedure:-

- Processed products
- Bakery products
- Extruded products
- Instant Mixes

(1) Processed products

a) Malted wheat:- The process of malting consist following steps:

i) Good quality grain is steeped in cold water for 36 hours in warm climate with two or three changes of water. The steeped grain is spread on wire mesh trays of 2-3 thickness, which are kept in a stand.

The germination is allowed to proceed for 3 days in a warm climate. During germination amylase and protease are formed

Germination grain is allowed to slow dry during which the amylase act on starch., hydrolysing them. The drying should be at a low temperature to conserve as much of the enzyme

Teacher's Signature _____

activity as possible. During drying, the water soluble carbohydrates and nitrogen increase. The characteristic malt flavour is developed The malt is dried to moisture content of about 13%

b) Puffed wheat:-

Whole grain wheat are cleaned about & conditioned. It is then fed into an externally heated, sealed pressure chamber steam is injected to raise the internal pressure in the chamber to about 14kg $/cm^2$ and then suddenly released by opening the chamber when owing to the expansion of water vapour the grain is blown up to several times its original size.

c) Popcorn:-

Popcorn has been a traditional snack food. Expansion volume is the most critical quality factor for popcorn. The texture is positively correlated with popping volume.

f) The water in the kernel is super heated and at the moment of popping gets converted into steam, which provides the driving force for expanding the IP80 thermoplastic endosperm after kernel

Teacher's Signature

Processing of Whole wheat Bread.

[Sponge preparation]

water + yeast + sugar

↓

[Dough preparation]

flour + gluten + defatted soy flour

↓

Mixing and kneading

↓

I proofing

↓

kneading

↓

shaping

↓

II proofing

↓

Baking (30 mins)

↓

cooling

↓

Slicing

↓

Packing & storing

Date

Expt. No. Page No. 11

iii) The rupture in the kenned lets the inside food material to pop out in a tasty different crispy material

(2) Bakery Products:-

a) Breads:-

i) Processing / preparation of whole wheat bread:-

Ingredients:- Whole wheat flour, water, yeast, vital gluten, sugar, defatted soy flour

Processing:-

i) Mix ingredients at low speed for 2-3 min just to incorporate ingredients.

ii) Ferment sponge for 8 hours at room conditions

iii) Incorporate dough ingredients then continue mixing at high speed to full gluten development. Allow dough to rest for 15 minutes.

iv) Next dividing, rounding, intermediate proofing, sheeting and moulding has to be done

v) Final proofing & Proof to full height at 92-95°F usually takes 45-60 minutes.

vi) Baking & bake at oven temperature of 380--420° F [193-215°C]

Teacher's Signature

Preparation of High Fibre Brand

whole wheat flour + fenugreek/horse gram/ dry lotus stem powder

↓

Mixing together

↓

Addition of yeast, Sugar and fat

↓

I proofing (45 mins)

↓

kneading & moulding

↓

Second proofing (20 mins)

↓

Baking at 200°C for 30 mins

↓

Cooling the bread

↓

Packing

↓

Storing.

Date

Expt. No. Page No. 12

viii) Cooling: Cool it an internal temperature of 90-95°F (32-35°C) usually takes 1-2 hrs.

viii) Finally packing and storing can be done.

ix) Preparation of High fibre Bread:-
High fibres bread is a whole wheat or whole grain bread that is enriched with extra fibre and contains at least four grams of fibre in a single serving. Extra sources include wheat or nat bran or soy or seeds or fenugreek or horse gram or dry lotus stem powder

Ingredients:- whole wheat flour, yeast, Sugar, extra fibre source etc.

Preparation

i) Mix whole wheat flour and fenugreek/horse gram/ dry lotus stem powder powder

ii) Add yeast, Sugar and fat

iii) Do the first proofing, usually takes about 45 minutes.

iv) Start kneading the dough and continue to mould.

v) Its time for second proofing now which takes around 20 mins.

vi) Now you can bake it at 200°C for 30 mins

Teacher's Signature

Preparation Process:-

Shifting or sieving → Mixing → Depositing →

Baking → cooling → Packing → Marketing

100 gram of piece of cake can provide the following Nutrients

S.No	1 cake slice (100 grams)	
1.	Calories	393 Kcal
2.	Saturated fat	8 gram
3.	Poly Saturated fat	6.4 g
4	Mono unsaturated fat	7.6 g
5.	cholesterol	75 mg
6	Total Carbohydrates	57 g
7	Dietary fibre	0.3 g
8.	Sodium	270 mg
9.	Potassium	54 mg
10.	Sugars	42 g
11.	Vitamin A	2.1%

Date

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vii) Cool the loaves down.

viii) Your high fibre bread is now ready to pack and store.

iii) Preparation of cakes:-

Raw Materials Required:-

Baking powder, Castor Sugar, Eggs, All purpose flour (Maida), Vanilla Essence, corn starch, oil, water, whipping cream, Icing Sugar

Preparation Process:-

i) Mixing:- All the raw material are added in the amount needed according to the required sequence.

ii) Depositing:- The baking tray is appropriately greased with oil and a butter paper of appropriate shape.

iii) Baking:- Bake at 360-425°F (182-218°C) to an internal temperature of 240°F (95°C)

iv) De-planning:- De-pan from the oven onto dusted paper pan liners while the cakes are still warm.

Cooling:- Cool products to Loaf internal temperature of 95-105°F (35-40°C) before slicing and packing.

Teacher's Signature

Ingredients	
Maida	200g
Fat	80g
Salt	½ tsp
Yeast	5g
Sugar	5g
Egg	1
Milk	40ml
Oil	80ml

Fillings	
Tomatoes	3
Cheese	4 pkts
Chillies	4 or 5
Onion	2 big
Curry leaves	One bundles
Salt	for taste
Capsicum	as required

Date

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vi) Icing:- Simultaneously whipping cream and Icing Sugar are beaten by a simple beater until sufficiently stiff, which is then used to decorate the cake.

vii) Storage and packing or serving:-
Now your cake is ready to either pack or freshly served as per your requirment.

iv) Preparation of Pizza:-

Method:-

1) Sieve the flour twice.
2) Disintigrate yeast in luke warm water with little sugar
3) Dissolve salt in the remaining water and mix with flour roughly.
4) Beat the eggs in the ferment.
5) Add the beaten egg in front and knead to smooth and soft dough.
6) Knead in vanaspathi
7) Rest the dough for 40 mins
8) Roll the dough to ¼th of inch thickness and line the greased and dusted trays and dock with a fork.
9) Pour the filling on it and scatter the grated cheese on it.
10) Rest it for 15-20 mins to have a good body

Teacher's Signature _____

to the pizza
11) Bake the pizza at 400°F for 25-30 mins.
12) Serve hot.

Observation:-
Observed such nutritive values like Carbohydrates, Proteins, minerals, Vitamins, fibres, and also we get excess calories of Carbohydrates.

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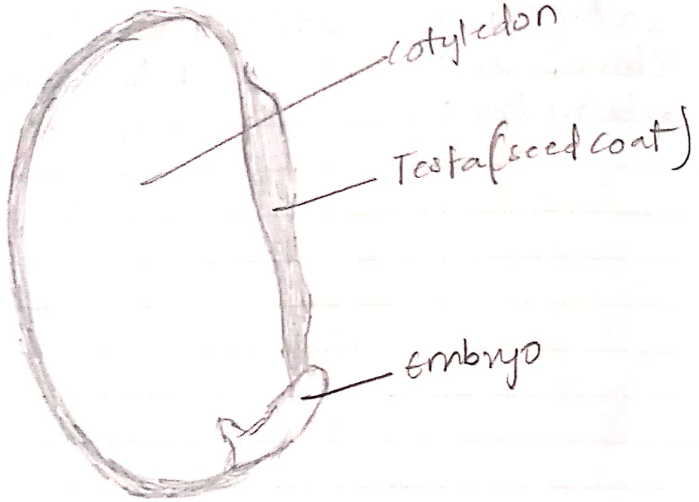

Structure of Pulse Grain.

Date

Expt. No. 03 PULSES PREPARATION Page No. 16.

Aim:- To prepare and give the nutritional significance of different recipes prepared using pulses.

Principle:-
To prepare different types of pulses by using Pulse like Black gram, Green Gram, & Red gram.

Procedure:-
- Idli preparation
- Green Gram Curry. [Moong dal]

Idli preparation:- Idli is a traditional fermented rice and black gram based food.

Ingredients:-
To prepare Idli, we need Black gram, rice, salt and water., methi

Process:-
1) Wash rice and urad dal thoroughly
2) Soak rice and urad dal in seperate bowls for no more than 2 hours. Soak methi seeds along with urad dal.
3) Need about twice as much water in the bowl as urad dal, as it expand as it soak up

Teacher's Signature

water

4) Drain the rice and urad dal. Do not discard soaking water, but do discard the rice soaking water

5) Grind the urad dal to fine paste in blender.

6) If needed, add some of the reserved soaking water

7) Grind the rice to paste with about 1 cup of chlorine-free water.

8) Grind coarsely. If the batter will only be used for Idli.

9) Mix the rice and urad dal paste together well, and season with salt.

10) If desired, stir in the fermentation starter and mix well

11) Set aside somewhere warm like to ferment for 8 hours.

Cooking :-

1) Grease one or more Idli pans well with ghee or veg oil.

2) Gently spoon the batter into the round Identification of the pans.

3) Steam for 12 mins in a steamer.

4) Remove Idli from Pans with a sharp knife or thin spatula

5) Serve hot.

Teacher's Signature

(2) Green Gram Curry :-

Green moong dal curry is a delicious Indian dish.

Materials required to prepare Dal :-

Onion, Tomatoes, Ginger Garlic paste, Green chilli, Pan, Cumin seeds, red chilli powder, Garam Masala, Coriander, turmeric, & Salt. [Moong dal].

Preparation :-

1) Heat ½ table spoon ghee or in a pot or cooker.
2) While the oil turns hot, add ½ TS of cumin & ¼ [TS] → Table spoon mustard seeds.
3) Then add curry leaves or bay leaf & green chilli.
4) Saute until a nice aroma comes out.
5) Add Onion & saute until they turn golden
6) Add ginger garlic paste & saute.
7) Add tomatoes, cook until they break down & turn mushy
8) Add all the ground spices and salt - red chilli powder, garam masala, coriander powder, & turmeric
9) Saute for a minutes until the masala smells good.
10) Drain the water from the green moong dal & add them here. Pour ½ cup water for Pressure cooking or 2½ cup.

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11) Cover and pressure cook for 3 whistles on medium heat. When the pressure releases, open the lid.

12) Taste it and more salt if needed.

13) To thicken, mash some of the dal. Garnish with some coriander leaves.

14) Serve it with a plain rice or roti.

Observation:-

Observed Good nutritive value like Carbohydrates, Proteins, minerals, vitamins, fibres and also we get excess calories of proteins.

Teacher's Signature _____

Date

Expt. No. 4 COMBINATION OF CEREALS AND PULSES Page No. 20

Aim:- To Prepare and gives the nutritional significance of different recipes prepared using combination of both cereals and Pulses.

Principle:-
To Prepare different types of Item by using both combination cereals and pulses.

Procedure:-

→ Rice comes under Cereals

→ Green Gram comes under Pulses.

So we prepare both to get good nutritive values

- Rice
- Green Moong dal.

Rice:-

Material required:- Rice, water, salt, cooker or pan.

1) Put rice in a wide bowl and rinse them 2-3 minutes with cold water.
2) Now add water and keep them aside for Soaking.
3) Cooking rice → For 1 cup of rice we use 2½ or 3 cup of water

Teacher's Signature _____

4) Then put 3 cups of water in a pressure cooker
5) Add rice in it
6) Then add some salt as per your taste
7) Close the lid and let the cooker blow whistles.
8) After 2 whistles and just before the 3rd one switch off the flame.
9) Do not remove the whistle / weight immediately.
10) But let it come down to room temperature on its own before opening the lid.
11) Serve hot in a plate.

And for Pulses we can prepare Green Gram curry.

Green Gram curry:-
Materials:- Dal, Onion, Tomatoes, Green chilli, Coriander, Pan, & spices.

Preparation:-
1) Heat half table spoon ghee in a cooker
2) While the oil turns hot, add ½ TS of cumin & ¼ TS mustard seeds
3) Then add curry leaves or bay leaf & green chilli.

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Date

Expt. No. _____ Page No. 22

4) Saute until a nice aroma comes out.
5) Add onion & saute until they turn golden
6) Add ginger garlic paste & saute
7) Add tomatoes until they turn mushy
8) Add all spices & salt - Red chilli powder, garam masala, coriander powder and turmeric
9) Saute for a minute
10) Drain the water from the moong dal & add them here. Pour ½ cup of water for pressure cooking or 1½ cup water
11) Cover & pressure cook for 3 whistles on medium heat.
12) When the pressure releases, Open the lid
13) Taste it and add salt if needed
14) Garnish with some coriander leaves.
15) Serve it with rice plain or with other cereals / cereals

Observation:-

Observe excess nutritive value like Carbohydrates, Proteins, minerals, vitamins, fibres & also we get excess calories of carbohydrates and proteins.

Teacher's Signature _____

Fruits
↓
Washing
↓
Trainming
↓
Cutting or Grading
↓
Juice Extraction
↓
Straining
↓
Juice Measuring
↓
Preparation of syrup
[Sugar + water + acid ; Heating]
↓
Straining
↓
Mixing with Juice
↓
Addition of preservative
↓
Bottling
↓
storage.

Expt. No. _____ Preparation to store fruits [Squashes and Jam.] Page No. 23

Aim:- To prepare and give the nutritional significance of different receipe prepared using fruits to store them for long term use.

Principle:- Using fruits to prepare squashes and Jam for long time preservation

1. Preparation of Squashes:-

→ First take a fruit you can select any fruit like Orange, Mango, Lime, lemon, Lichi, pine-apple, Guava, Papaya, etc

→ Start by washing the fruit thoroughly with water

→ If the fruit is suitable for directly trimming then do it.

→ Otherwise cutting or Grading can be done

→ Use some instrument for the juice extraction

→ Strain the juice to remove unwanted material

→ Measuring of the juice is an important method to add further ingredient accordingly

Teacher's Signature _____

→ Heat it to help it dissolve completely

→ Strain it.

→ Mix the syrup with juice.

→ Addition of preservative is the next step [0.6 KMS or 1.0g of sodium benzoate / ltr the squash]

→ Your ~~fruit~~ squash is ready to be bottled

→ This prepared squash can now be stored or served as per the need.

Teacher's Signature

Ripen firm fruits

↓

Washing

↓

Peeling

↓

Pulping

↓

Addition of Sugar and acid

↓

Boiling

↓

Sheet testing

↓

Filling hot into sterilized bottles

↓

Cooling

↓

Waxing

↓

Capping

↓

Storing

Date

Expt. No. _____ Page No. 25

2. Preparation of Jams:-

a) Selection and preparation of fruit.

Select a good quality ripen fruits. Wash the fruits well in cold water. Peel the fruits and remove the stone and corners present. Cut the peeled fruit into small pieces with a stainless steel knife. If the fruit is hard, it should be cut into very small pieces. Pulp the fruits by using pulper.

b) Addition of sugar and acid

c) Cooking:-

Cook the mixture slowly with occasional stirring. The fruit pulp should be crushed with a ladle during cooking. Continue cooking until the temperature of the mass reaches 105.5°C.

d) Packaging:-

Fill the hot jam into clean dry sterilized jams. Allow the jam to cool and fix the sterilized lid to the jar. Store in a cool place.

Teacher's Signature _____

Date

Expt. No. _____ Page No. 26

Observation:-

Observed maximum content of Nutritive values in Jam & squashes.

Teacher's Signature _____

Date

Expt. No. Egg Quality. Page No. 27

Introduction:-

India is one of the largest egg producer in the world. Although eggs of all birds may be eaten. The egg of chicken is used more often than any other. The natural function of an egg is to provide for the development of the chick. Its whole structure and composition are designed to fulfill this natural purpose.

One egg has only 75 calories but 75 grams of high quality protein, 5 grams of fat, and 1.6 grams of saturated fat, along with iron, vitamins, minerals, and caretenoids.

The egg is the powerhouse of disease fighting nutrients like Lutein and Zeaxanthin.

Egg is an excellent food and hence its quality of very great importance.

Fresh eggs have best quality. Quality of egg can be determined by many factors like Shell, Air cell, egg white, egg yolk and shell eggs, etc.

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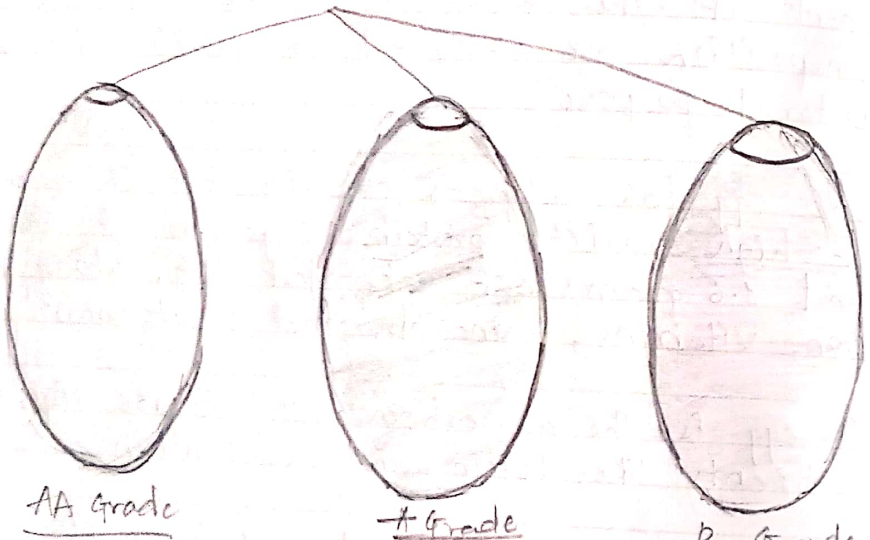
Candling



AA Grade
yolk not more than dimly visible. Air cell not more than 1/8 inch deep

A Grade
yolk may be visible, Air cell not more than 3/16 inch deep

B Grade
yolk may be plainly visible. Air cell not more than 3/8 inch deep

Date

Expt. No. Page No. 28

Quality of eggs

Aim:- To determining the quality and freshness criteria for eggs

Principle:- Finding the quality of egg by using different method like candling and floating test.

Procedure:-

Test 1- Candling:-
Candling can be ~~red~~ reveal:-
a) a Crack in the shell
b) the size of the air cell.

Material required:-
Eggs, light source

1) Just take eggs one by one and start observing them by keeping them very close to the light
2) Observe the "Air cell" on the top of the eggs to grade the egg and hence consider their quality.
3) You can also consider the eggs age by just observing the colour and parts inside the egg.

Teacher's Signature

Date

Expt. No.

Page No. 29

4) If the egg is yellow then it is young like [4-5 days old]

5) If you spot red colour covering huge area you can say that the egg is old embryo development has started.

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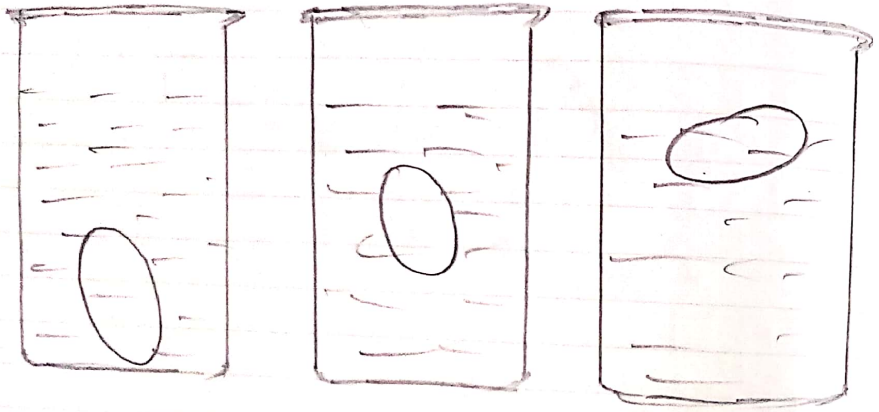
Floating Test to evaluate The Quality of egg



To test the freshness of an egg, plunge it into a 12 percent solution of salted water. A fresh egg falls at once to the bottom, an egg 2 days old floats midway, An egg 4 days old rises to surface. A 2-week old egg floats on top.

Date

Expt. No. _____ Page No. 30.

Test -2- Floating Test

Floating test- to evaluate the quality of egg

Material required:-
Table, salt, two large containers [Mason Jar], Tape for labeling containers [fresh water or salt water], Tablespoons for measuring salt and stirring, tap water, two raw eggs.

Directions
Fill the two containers with equal amount of tap water
Add a raw egg to each container
Record if the egg floats in the data table
Add 1 tablespoon of table salt at a time to the salt container and stir until salt dissolved
Record if the egg floats with each added tablespoon of salt in data table
Draw conclusions about your results and report what you have found

Observed quality of egg by using different methods like candling and floating method.

Teacher's Signature _____

SPOTTERS

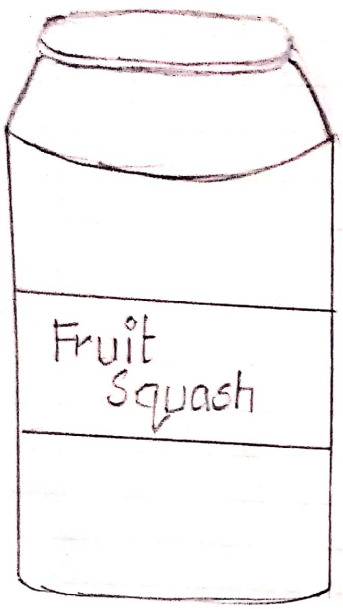
Date

Expt. No.

Page No. 21

Teacher's Signature

Canning



Date

Expt. No. Squash Page No. 32

1) All types of Squash are fruits, Botanically Speaking, as they contain seeds and develop from the flower producing part of a plant

2) Squashes are not as sweet as other fruits and are usually prepared and served or considered a vegetable in the kitchen.

3) Yellow varieties of squash provide numerous health benefits

4) Yellow squash is also rich in manganese

5) This ~~help~~ minerals helps to boost bone strength and helps the body's ability to process fats and carbohydrates.

6) Squash flesh can be fried, dried, roasted, pureed, steamed and boiled.

7) Squash is also used as a healthy pasta substitute - courgetti, with no gluten and far fewer calories than pasta.

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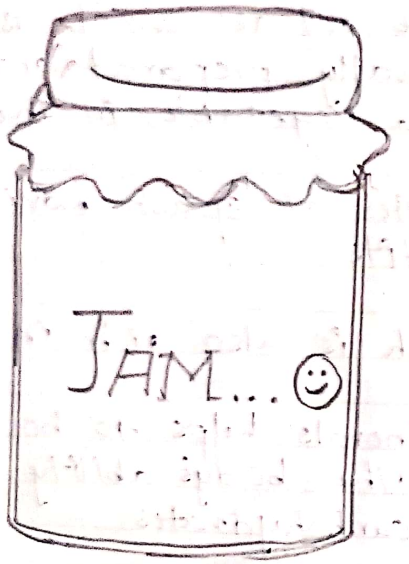


Date

Expt. No. Jam Page No. 33

1) Jam refers to a product made of whole fruit cut into pieces or crushed, then heated with water and sugar until, it reaches "jelling" or setting point.

2) This is achieved through the action of natural or added pectin for thickening as All fruits contain pection

3) The pectin present in Jam also helps in decreasing the blood pressure and in forming red blood cells of the body

4) And, this is also another health benefits of consuming every types of fruits

5) Moreover, it also helps in healing your cuts and wounds.

6) Jam made with chunks of healthy fruits that can help reduce the risk of stroke, heart attack and all other potential cardiovascular disease.

7) Good quality Jam is full of vitamins, minerals, phytonutrients and fibres.

Teacher's Signature

Expt. No. _____ Pickles Page No. 34

1) Pickling is the process of preserving or extending the shelf life of food by either anearobic fermentation in brine or immersion in vinegar.

2) The pickling procedure typically affects the food's texture and flavour.

3) Pickles have some health benefits, such as being a low-calorie, low fat source of fibre, vitamins A & K, and immune-boosting vitamin C.

4) Fermented pickles are also good source of probiotics, which are important for gut health.

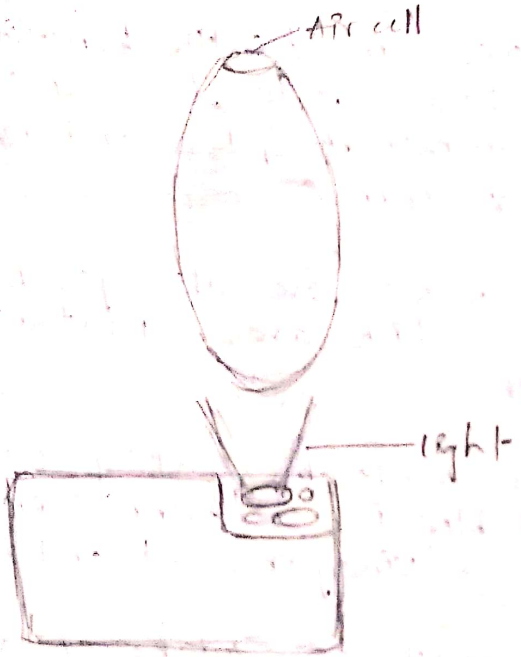
5) Pickles are made by soaking cucumber & other vegetables in a brine solutions consisting of vinegar, salt and spices.

6) Pickles can boost your intake of antioxidants

7) The natural antioxidants found in all fruits and vegetables helps in the fight against free radicals.

Teacher's Signature _____

Candling test



Date

Expt. No. _____ Candling test Page No. 35

1) Candling is a method used to observe the growth and development of an embryo inside an eggs.

2) It uses a bright light source behind the egg to show details through the shell

3) It is also called because the original source of light used were candles

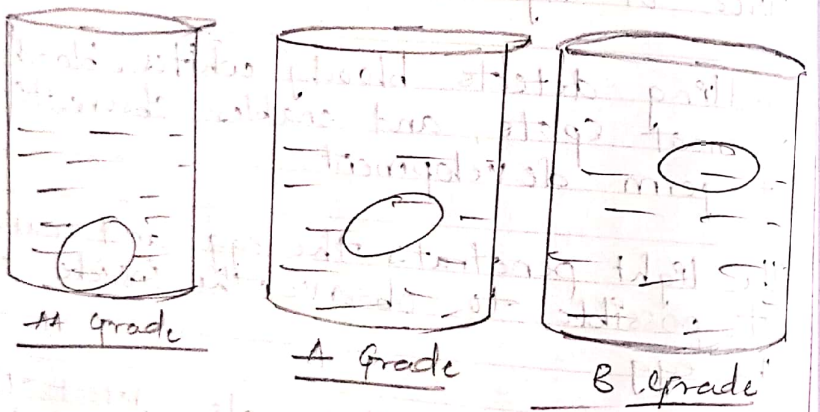
4) Candling detects bloody whites, blood spots, or meat spots, and enables observation of germ development.

5) The light penetrate the egg and makes it possible to observe the inside of the egg.

6) By Candling test, it can also detect the air cells inside the eggs and also the cracks

7) It is used to see whether the egg is fertile or not by looking colour, shape and the air cells.

Teacher's Signature _____



Date

Expt. No. Floating test

1) You may have heard about the method of floating test or water test, which involves placing an egg in a bowl of water and seeing if it sinks or floats

2) If the eggs sink to the bottom and lie flat on their sides, that means they are very fresh.

3) If the eggs stands on one end at the bottom, they are few weeks old, but still fine to eat.

4) If the eggs floats to the surface, that means are no longer fresh.

5) The theory is that, as an egg ages, the air pocket inside it grows larger, buoying an old egg to the surface.

6) Egg floats because, the air cells enlarged sufficient to keep it buoyant, as water is released and replaced by air

7) Therefore, it provides an useful indication of the age of an egg.

Teacher's Signature

Hard Crack stage in Candy

Date

Expt. No. _____ Hard Crack Page No. 37

1) The Hard crack stage is the highest temperature which are likely to see specified in a Candy recipe.

2) At these temperature, there is almost no water left in a syrup.

3) Drop a little of the molten syrup in cold water and it will form hard syrup, brittle threads that break when bent.

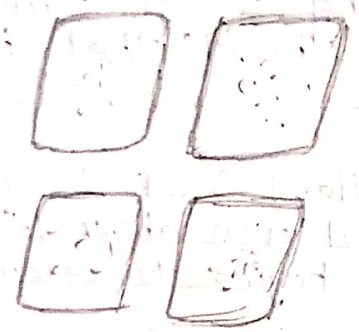
4) The stage of Hard Crack 300 degrees Fehrenheit and even above., Above 330° F, the sugar begins to caramelize and brown.

5) Hard crack stage is best for toffees and brittles.

6) When candies reach these stages confectioners can add things to the candies.

7) Gelatin is added to the sugar solution at hard ball stage to make gummy candies. This all about Hard crack stages

Teacher's Signature _____



Caramel Candy

Date

Expt. No. _____ **Caramel.** Page No. 28

1) Caramel is an orange-brown confectionary product made by heating a range of sugars.

2) It can also be used as a flavoring in puddings and deserts, as a filling in bonbons, or as a topping for ice-cream and custard.

3) The process of caramelization consists of heating sugar slowly to around 170°C (340°F).

4) As the sugar heats, the molecules break down and reform into compounds with a characteristic colour and flavour.

5) A variety of candies, deserts, toppings and confections are made with caramel.

6) Its specialty is, it brings indulgence.

7) Caramel is always made with three basic ingredients and those are sugar, heavy cream, and butter

Teacher's Signature _____

Round

Soft Ball Candy

Date

Expt. No. Soft-Ball-Crack Page No. 39

1) Soft crack stage refers to a specific temperature range when cooking sugar syrups.

2) The soft crack stage occurs at 270-290°F.

3) At this point, the sugar concentration of the syrup is 95% percent, which determines how pliable or brittle the candy will be.

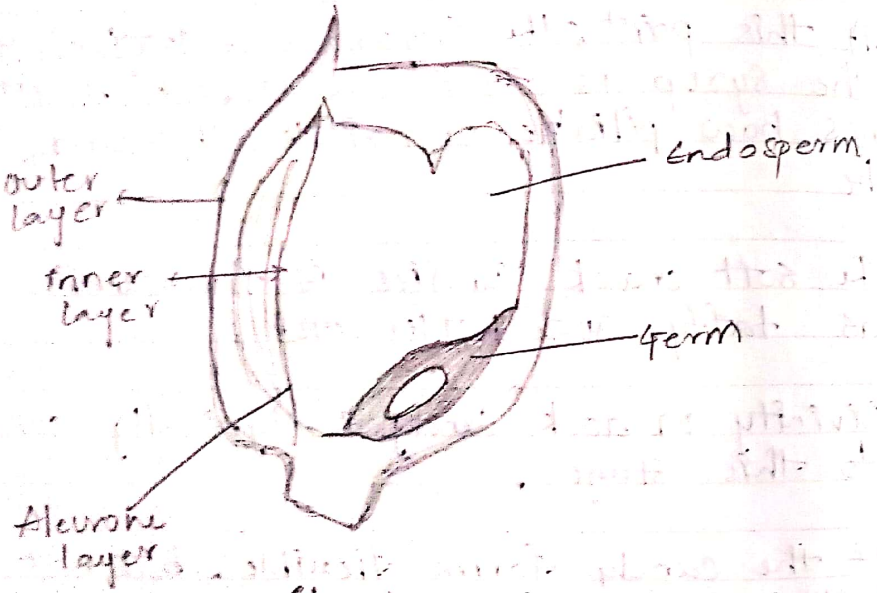
4) The soft crack candies is for candies such as taffy and butterscotch.

5) Divinity or rock candy is typically cooked to this stage.

6) If the candy forms flexible, but not brittle threads after dropping a small amount into cold water, the candy is said to be soft crack candy.

7) Even soft-crack candy is better than hard candy because it does not takes a lot longer to eat them. So there can be no bad for your teeths.

Teacher's Signature



Structure of Rice Grain

Date

Expt. No. _____ Cereals Page No. 40

1) Cereals grains are the fruits of plants belonging to the grass family [graminaceae]

2) Cereals are the plants which yields edible grains and includes rice, wheat, corn, barely and Oats.

3) Cereals are usually starchy pods or grains. Cereals grains are most important group of food crops in the world named after the Roman goddess of harvest ceres.

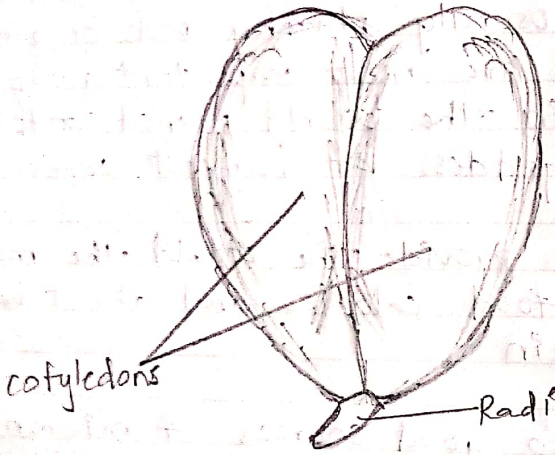
4) Cereals grains provide the world the majority of its food calories and about half of its protein

5) They are also good sources of micronutrients such as calcium, iron and vitamins of group 'B'.

6) Cereals are easy to store because of low moisture, easy to handle and provides varieties of diets.

7) Cereals contains excess calories of carbohydrates specially compared to others.

Teacher's Signature _____



Structure of Gram Seed

Pulse :

Expt. No. _____ Pulses Page No. 41

1) Pulses are a low fat source of protein, with high fibre content and low glycemic index.

2) Pulses are very high in fibre, containing both soluble and insoluble fibres

3) Soluble fibres helps to decrease blood cholesterol level and control blood sugar level.

4) Insoluble fibres helps with digestion and regularity.

5) Pulses includes beans, lentils and peas. For example, a pea pod is a legume, but the pea inside the pod is the pulse

6) Pulses provides max level of protein and fibre, as well as significant source of vitamins and minerals, such as iron, zinc folate, and magnesium

7) Pulses also possess antioxidant effect, which protect our body cells from the free radicals.

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