

PREPARE AND PRODUCE YEAST GOODS

D1.HPA.CL4.09



Prepare and produce yeast goods

This Unit comprises three Elements

- ◉ Prepare and bake yeast goods
- ◉ Decorate and present or display yeast goods
- ◉ Store yeast goods.



Prepare and produce yeast goods

Assessment for this Unit may include:

- ② Oral questions
- ② Written questions
- ② Work projects
- ② Workplace observation of practical skills
- ② Practical exercises
- ② Formal report from employer/supervisor



Element 1:

Prepare and bake yeast goods



Prepare and bake yeast goods

Performance Criteria for this Element are:

- Select required *commodities* according to recipe and production requirements
- Prepare a *variety of yeast goods* to desired *product characteristics*
- Produce a variety of yeast goods according to standard recipes and enterprise standards
- Use appropriate *equipment* to prepare and bake yeast goods



Prepare and bake yeast goods

Performance Criteria for this Element are:

- Use correct *techniques* to produce yeast goods to enterprise standards
- Bake yeast goods to *enterprise requirements and standards*
- Select correct *oven conditions* for baking yeast goods.



Flour

Elements of flour

- ◉ Starch
- ◉ Protein
- ◉ Sugar
- ◉ Moisture
- ◉ Fat
- ◉ Enzymes



Salt

Functions of salt

- ⦿ Controls fermentation
- ⦿ Toughens gluten (stabilising it)
- ⦿ Increases volume
- ⦿ Enhances flavours
- ⦿ Controls dough
- ⦿ Increases shelf life
- ⦿ Improves crust colour.



Yeast

Types of yeast

- ① Compressed
- ① Dried
- ① Creamed or liquid



Water

- ① Hydrates gluten forming proteins
- ① Dissolves and disperses salt and sugars
- ① Carries sugars to the yeast
- ① Provides moisture for yeast to grow
- ① Hydrates dry yeast



Water

- ⦿ Controls dough temperature
- ⦿ Controls dough consistency
- ⦿ Wets and swells starch during baking
- ⦿ Controls enzyme activity
- ⦿ Increases shelf life
- ⦿ Contributes to eating qualities



Fats

Definition of fats

Fat is a generic term.

It can mean:

- Oil
- Butter
- Margarine
- Shortening



Fats

Effects of fat

- ① Improves slicing
- ① Softer crumb
- ① Shorter eating crumb
- ① Softer crust



Fats

Effects of fat

- ⦿ Better keeping qualities
- ⦿ Increases volume
- ⦿ Shorter eating crust
- ⦿ Emulsified fats retard crumb
- ⦿ Enhances firmness



Sugar

Effects of sugar

- ① Softens crumb
- ① Sweetens
- ① Increases crust and whiter crumb colour
- ① Increased levels slacken or weaken the dough
- ① Greater water retention
- ① better eating qualities



Milk powder

Effects of milk powder

- ⦿ Brighter and softer crumb
- ⦿ Increased nutritional value and flavour
- ⦿ Greater volume (due to strengthening of gluten strands by the case in protein)
- ⦿ Slight sweetness (due to lactose).



Eggs

Types of eggs

Eggs can be purchased as follows:

- ① Shell Egg
- ② Liquid Egg or Egg Pulp
- ③ Frozen Egg



Eggs

Effects of eggs

- ◉ Moistening
- ◉ Enriching due to fat in the yolk
- ◉ Increased nutritional value
- ◉ Emulsifying, due to lecithin in the yolk, therefore better keeping qualities
- ◉ Aids structure, due to the proteins
- ◉ Better colour and appearance
- ◉ Better eating qualities
- ◉ Better keeping



Bran

Effects of Bran

- ⦿ Darker crumb colour
- ⦿ Lower volume, due to the non-gluten forming proteins
- ⦿ Increased water levels
- ⦿ Shorter mixing times
- ⦿ Higher fibre intake



Dried fruit and nuts

Common used dried fruits

- ⦿ Sultanas
- ⦿ Currants
- ⦿ Raisins
- ⦿ Mixed peel
- ⦿ Dates



Dried fruit and nuts

Commonly used nuts

- ⦿ Hazelnuts
- ⦿ Walnuts
- ⦿ Almonds
- ⦿ Peanuts



Dried fruit and nuts

Effects of dried fruit and nuts

- ⦿ Eating qualities
- ⦿ Texture
- ⦿ Flavour
- ⦿ Colour
- ⦿ Increased moisture
- ⦿ Increased shelf life
- ⦿ Better visual appeal



Types of yeast products

Types of yeast goods

- ① Yeast goods are defined as a sweet dough product.
- ① Bread is produced with yeast and is the savoury version.
- ① A sweet yeast product would be any dough with more than 5% sugar and increased levels of fat.



Types of yeast products

Types of yeast goods

What are common types of:

- ① Sweet yeast goods
- ① Savoury yeast goods



Types of yeast products

Types of 'specialty' yeast goods

- ⦿ Baba
- ⦿ Bienenstich
- ⦿ Brioche
- ⦿ Buchty
- ⦿ Chelsea bun



Types of yeast products

Types of 'specialty' yeast goods

- ① Cholla
- ① Colomba di pasqua
- ① Croissant
- ① Doughnut
- ① Gugelhof
- ① Hot Cross buns



Types of yeast products

Types of 'specialty' yeast goods

- ◉ Panettone
- ◉ Pignoli
- ◉ Streuselkuchen
- ◉ Stollen
- ◉ Savarin



Types of yeast products

Types of 'specialty' yeast goods

- ◎ Panatone
- ◎ Gingerbread doughs
- ◎ Honey cake (Israel)
- ◎ Tsoureki (Greece)



Produce a variety of yeast products

Fruited yeast products and buns

Usually specialty sweet yeast products are very rich because of large amounts of:

- Butter
- Fruit



Special ingredient functions

Fat

The degree of richness of fruited yeast products and buns is determined to a great extent by their ratio of fat.

This affects:

- ⦿ Their flavour
- ⦿ Crumb texture
- ⦿ Storage life



Special ingredient functions

Sugar

The proportion of sugar added usually depends on:

- ① Type of product
- ① Amount of dried fruit used
- ① Desired sweetness of the product.

Caster sugar is the best choice



Special ingredient functions

Fruit

Dried fruits should be washed and well-drained before added to dough.

This will:

- ① Reduce water absorption from the dough
- ① Increase yield
- ① Improve eating quality
- ① Increase volume by producing more steam in the product during baking



Special ingredient functions

Gluten

- Gluten can be added to strengthen the dough structure to produce a more bolder product.
- What are sources of gluten?



Production

Dough temperature

- ① Water temperature for required Finish Dough Temperature (**FDT**)
- ① The ideal FDT for no-time, rapid or instant doughs is 27°–29°C.



Production

Dough yield calculations

- How can you determine dough yield calculations for a variety of items?



Production

Dough making process

Modern production of doughs varies from country to country.

Two dough making processes:

- ⦿ Rapid or 'no time' process (ADD Process)
- ⦿ Ferment and dough process



Production

Effects of the 'rapid' process

- ⦿ Yeast level from 3% upwards, depending on size of product
- ⦿ Requires A.D.D. bread improver
- ⦿ Warmer dough temperatures 28-30oC.
- ⦿ The gluten structure is modified by chemicals
- ⦿ Ascorbic Acid strengthens (matures)
- ⦿ L Cysteine or Metabisulphite softens (mellows)



Production

Effects of the 'rapid' process

- ① Space Saving
- ① Increased bread yield
- ① Divider accuracy improved
- ① If processing equipment breaks down there is less loss due Loss of flavour
- ① Increased cost of products (improver).



Production

Effects of the Ferment and Dough process

- ⦿ Fast fermentation, due to ideal conditions in the ferment
- ⦿ No improver required
- ⦿ No need for special equipment
- ⦿ Improved flavour, colour, volume and texture



Production

Effects of the Ferment and Dough process

- ⦿ Maturing is natural and takes place by the enzymic activity in the ferment
- ⦿ Loss of yield, due to moisture loss during fermentation
- ⦿ More space is required for fermentation in the dough room
- ⦿ Increased production cost, due to two mixes.



Production

Production steps

- ① Disperse yeast in water
- ② Whisk vigorously to break down lumps
- ③ Add small sugar to stimulate the yeast
- ④ Mix in flour
- ⑤ Mix to produce a smooth batter
- ⑥ Whisk to aerate to stimulate the action of the yeast



Production

Production steps

- ① Cover and allow to rest in warm environment 32°C for approximately 25-35 mins
- ② Allow the ferment to stand until it begins to fall away
- ③ Dough mixing
- ④ Rest period
- ⑤ Moulding



Production

Production steps

- ① Prepare baking pans and trays
- ① Final prove
- ① Baking
- ① Bun wash or glaze
- ① Decoration



Appropriate equipment

Ovens

- ⦿ Deck ovens
- ⦿ Rack ovens
- ⦿ Gas & electric ovens
- ⦿ Wood fire ovens
- ⦿ Brick bottom ovens



Appropriate equipment

Proofer and Retarders

Proofer

- ◉ Warm environment with high humidity allows the yeast to reproduce and make the dough rise and increase in size.

Retarders

- ◉ This is a chilled environment with high humidity that will hold the dough and not allow the yeast to grow.



Appropriate equipment

Mixers, dividers and rollers

- ◉ Spiral Dough mixer
- ◉ Planetary Mixer
- ◉ Bun Dividers and roller



Correct techniques to produce yeast goods

Key requirements

- ⦿ Correct weighing of Ingredients
- ⦿ Formula balance
- ⦿ Bakery products are consistent when formula balance is maintained
- ⦿ Scaling weights accurately
- ⦿ Mixing the dough/batter the same every time
- ⦿ Cutting or weighing to correct size
- ⦿ Moulding to correct shape
- ⦿ Baking the same every time



Correct techniques to produce yeast goods

Key requirements

- ⦿ Correct weighing of Ingredients
- ⦿ Formula balance
- ⦿ Bakery products are consistent when formula balance is maintained
- ⦿ Scaling weights accurately
- ⦿ Mixing the dough/batter the same every time
- ⦿ Cutting or weighing to correct size
- ⦿ Moulding to correct shape
- ⦿ Baking the same every time



Good product characteristics

Product characteristics that customers look for come from the following:

- ① Colour of the product
- ① Appearance
- ① Consistency
- ① Texture
- ① Moisture content
- ① Mouth feel and eating properties



Correct oven temperatures

Select correct oven conditions for baking yeast goods

- ① Yeast goods will be baked in an oven temperature ranging from 180°C -220°C.
- ① Products baked with sugar will darken on the crust quicker than bread.
- ① To control the browning of the crust the product is baked at a lower temperature



Element 2:

Decorate and present/display
yeast goods



Decorate and present/display yeast goods

Performance Criteria for this Element are:

- Prepare a variety of *fillings and coating/icing and decorations* for yeast goods
- Decorate yeast goods using fillings and coating/icing and decorations according to standard recipes and/or enterprise standards and/or customer requests
- Present/display yeast goods to enterprise standards using appropriate *service equipment*.



Correct oven temperatures

Select correct oven conditions for baking yeast goods

- ① Yeast goods will be baked in an oven temperature ranging from 180°C -220°C.
- ① Products baked with sugar will darken on the crust quicker than bread.
- ① To control the browning of the crust the product is baked at a lower temperature



Decorate display present yeast goods

Prepare a variety of fillings glazes decorations:

Fruit fillings

- Gel stabilised

Cream cheese fillings

- Sweetened and flavoured

Icings

- Fondant
- Water ices
- Dust - Icing sugars.



Decorate display present yeast goods

Prepare a variety of fillings glazes decorations:

Nut pastes

- ⦿ Ground
- ⦿ Sweetened

Savoury fillings

- ⦿ Meats and spices
- ⦿ Vegetables and spices.



Decorate display present yeast goods

Decorating products

- ① Identify a range of products
- ① How should they be presented?
- ① How do you maintain temperatures?



Element 3:

Store yeast goods



Store yeast goods

Performance Criteria for this Element are:

- ② Store at *correct temperature and conditions of storage*
- ② Maintain maximum eating quality, appearance and freshness.



Store yeast goods

Store at correct temperature:

Room temperature

- ⦿ Best eating temperature

Long term

- ⦿ Frozen
 - Baked
 - Unbaked.



Store yeast goods

Maintain maximum eating qualities appearance and freshness:

- Bake daily
- Bake only what is required
- Protect from moving air.



Thank you

