



# **SNS COLLEGE OF TECHNOLOGY**

**An Autonomous Institution  
Coimbatore - 35**

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Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai.

## **DEPARTMENT OF FOOD TECHNOLOGY**

### **19FTT304 BAKING AND CONFECTIONERY TECHNOLOGY**

#### **III – YEAR VI SEMESTER**

#### **UNIT 3 BAKERY PRODUCT AND TECHNOLOGY**

#### **TOPIC 4- Bread Faults and Remedies**



# INTRODUCTION

## Bread Faults and Remedies





There are number of factors which may be responsible for creating faults in bread. However some of the major factors which adversely influence the quality of bread are follows:

External faults :

1. Volume:

Proper volume of bread is the outcome of adequate conditioning of gluten and sufficient gassing power of the dough at the time of baking.

- Too little or excessive yeast content.
- Under fermentation of dough.
- Excessive quantity of salt, sugar or fat.
- Excessive temperature in the oven.
- Under proofing of bread.
- Over fermented dough.
- Over mixed or under mixed dough.
- More use of chemical bread improvers.





External faults :

2. Excessive volume:

If there is over fermentation, the volume may be small because the gluten will be mellowed and will not be in position to support the structure.

- Slack dough.
- Lack of temperature in oven
- Lack of salt.
- Excessive quantity of yeast or proofing.
- Loose molding.



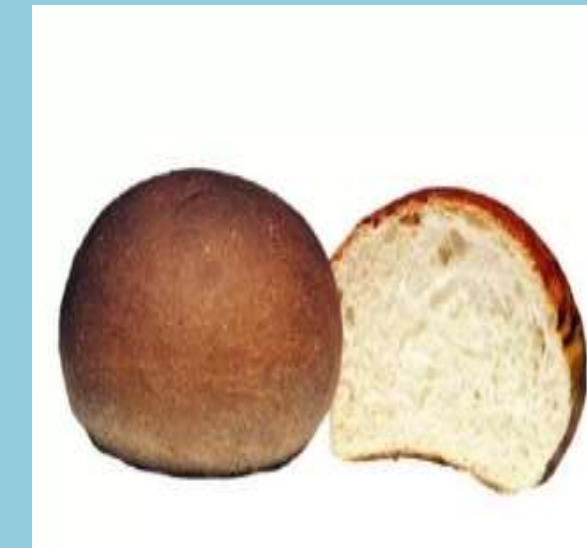


External faults :

### 3. Crust color

It is controlled by the amount of sugar present in the dough at the time of baking. If for any reason, there is more activity of yeast, more sugar will be consumed by yeast and bread will have a light brown colour.

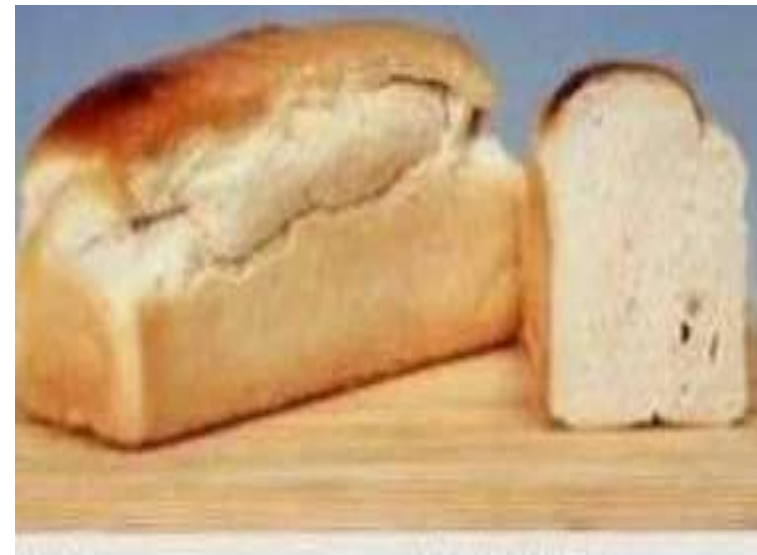
- Under fermentation or over fermentation.
- Excessive yeast, sugar or salt.
- Less salt.
- Slack dough.
- Lack of humidity in the oven.
- Bake at too high temperature.





### External faults :

4. Wild break or flying tops or shell tops If the gluten is not adequately conditioned during fermentation, the top crust instead of rising gradually will burst open under the pressure of expanding gas. This is called wild break or flying tops or shell tops.





External faults :

5. Blind appearance If the dough is over fermented, the gluten will lose its resistance power. In such conditions no break shreds will be produced, this is known as having Blind appearance. Some other reasons for the absence of break shreds are.

- Under fermented dough.
- Over proving.
- ● High temperature oven.
- ● Slack dough.

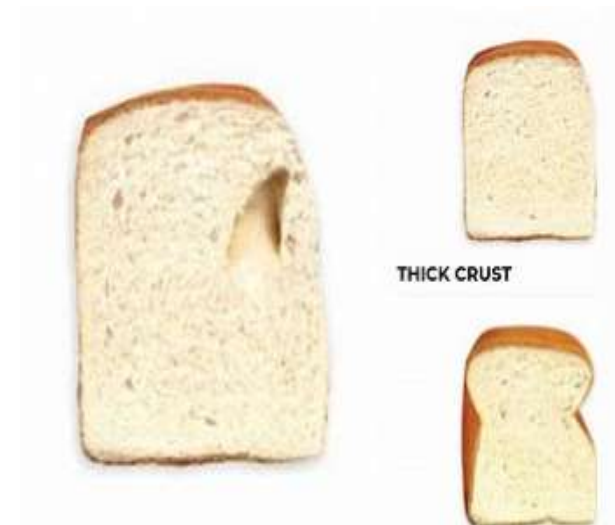




## Internal Faults

### 6. Holes and tunnels in bread

- Weak flour.
- High yeast content.
- Ingredients like fat, milk, salts, sugar, and yeast are not mixed properly in the dough.
- If oven base is too hot, there will be faster set of structure on the lower surface of the bread, while the inner part will rise as the heat penetrates in the bread creating holes in the bread.
- Dough is not knocked back at all or if the knock back is not done properly.
- Excessive use of dusting flour at the time of molding.







## Internal Faults

### 7. Cores and seams

When the cut surface of crumb is gently pressed with finger tips, it is likely that entire surface may not be evenly soft and presence of occasional hard spots may be felt. These hard spots are known as Cores.

- Uneven mixing specially hand mixed dough.
- Incorporation of bits of dough, after the dough is set for fermentation.
- Skin formation during intermediate proving. The expansion of the dough (during baking) is restrained by the side walls or the cover of the bread mould. Due to the pressure from the expanding gas, the outer structure of bread is formed into dense layers. If the surface of bread is observed, it is noticed that the central part has an open soft structure while the outer periphery has very close and compact structure. These dense layers are known as Seams.
- Weight of the dough more than the capacity of the mould.
- Too hot or too cold bread molds.
- Careless handling of fully expanded bread or disturbing the bread in the oven before structure is set.





## **Internal Faults**

### 8. Condensation marks

- If the bread is not allowed to cool properly before packing, some of the water vapors will deposit in the crumb structure causing dark colour patches known as Condensation marks

## **Internal Faults**

### 9. Irregularity of shape.

- While moulding bread by hand, an even pressure should be applied so that a moulded piece of dough has an even appearance. Expansion during proving of such piece of dough will be even and resultant bread will have regularity of shape.





## **Internal Faults**

### 10. Close crumb

Milk has a tightening action on gluten and if it is used in the formula without compensating with enhanced quantity of yeast, water and fat, the bread will develop a very close crumb. In plain white bread, excessive quantity of fat will break down the crumb structure making it close and compact.

- Too slack dough
- Too tight dough.
- Excessive use of fat.
- Use of weak flour.
- Excessive use of mineral improvers.
- Low salt content.
- Poor quality of flour.
- Under mixed dough.
- Under baked bread.
- Over proving of bread.



**THANK YOU**