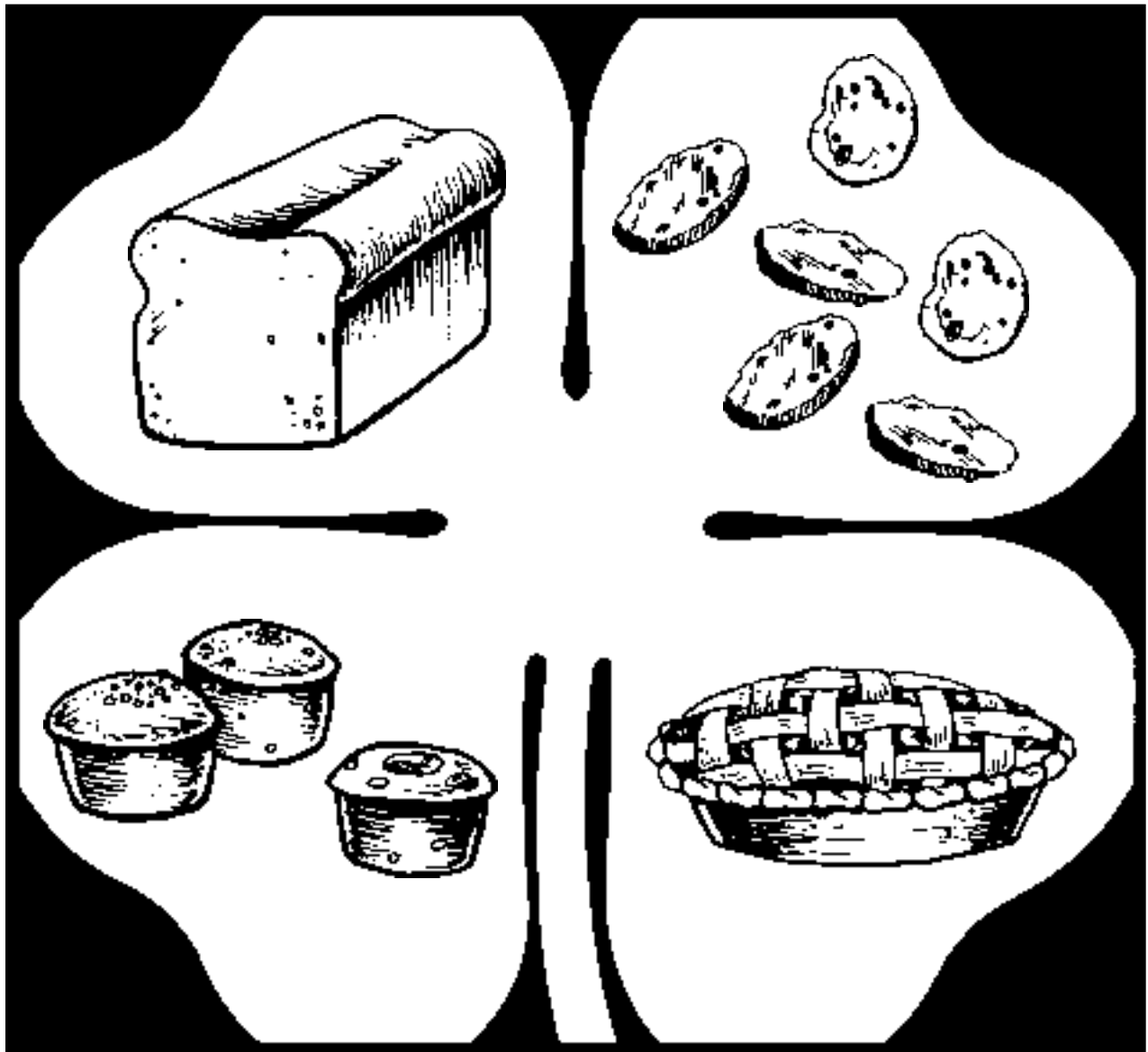


4-H SUPPLEMENTAL MATERIAL



# JUDGING BAKED PRODUCTS

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# Judging Baked Products

Sandra Garl Brown

Quality baked products must look and taste good. Recognizing excellence and knowing what went wrong are important in judging baked products.

Baked products are evaluated on characteristics of appearance, texture, and flavor.

**APPEARANCE** refers to the size, shape, color, and condition of the outside surface and interior color.

**TEXTURE** refers to product structure. This is the size of gas holes, thickness of cell walls, and crumb texture.

**FLAVOR** is product taste and aroma.

Common procedures, though, can result in problems in any baked product:

**DARK EXTERIOR** Overbaked; oven temperature too hot; poor circulation of heat.

**DARK BOTTOM** Dark pan used (absorbs heat quicker); poor heat circulation; product placed too low in the oven.

**PEAKED TOP** Inaccurate measuring (too much flour); too much batter in pan; overmixing.

**TUNNELS** Overmixing.

**TOUGH/COARSE TEXTURE** Overmixing/overkneading; too much flour.

**OFF FLAVOR** Rancid fat; improper ingredients or measuring; ingredient missing.

## **MICROWAVE BAKING**

Even though alterations in recipes and baking procedures are made when baking in the microwave, the color and texture of the product will be different from that baked in a conventional oven. The differences affect the quality.

Here are some common differences.

**COLOR** Pale all over unless product uses whole wheat or chocolate.

**TEXTURE** No crust formation; doughy and sticky on the outside; coarse texture; often tough due to overbaking.

**SURFACE** Not level—may have high and low spots

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The author was formerly Extension Family Living Agent/Chair in Cowlitz/Wahkiakum counties.

The following charts tell what to look for in various baked goods, and how to correct problems that might occur. These standards are designed for products made with refined grains. Breads made with whole grain flours will be heavier and coarser. The color will also be darker. This is acceptable.

### QUALITY STANDARDS

APPEARANCE	TEXTURE	FLAVOR
<b>Muffins</b>		
<b>TOP</b> Cauliflower-like, rough and pebbled Thin; slightly rounded	<b>GAS HOLES</b> Medium and evenly distributed	Bland to slightly sweet
<b>EXTERIOR</b> Golden brown Uniform size and shape	<b>CELL WALLS</b> Tender Medium	
<b>INTERIOR</b> Distinctive of ingredients		
<b>Biscuits</b>		
<b>TOP</b> Pale golden brown; flat and slightly rough	<b>GAS HOLES</b> Small	Bland, mild, and delicate
<b>EXTERIOR</b> Sides straight	<b>CELL WALLS</b> Thin Crisp outer crust Thin crust on top and bottom	
<b>INTERIOR</b> Creamy white	Slightly moist crumb Interior should peel in thin sheets	
<b>Quick Breads</b>		
<b>TOP</b> Rough with a slight sheen; may have a shallow length-wise crack	<b>GAS HOLES</b> Medium and evenly distributed	Delicate and mild, distinctive of ingredients
<b>EXTERIOR</b> Straight sides Even browning distinctive of variety	<b>CELL WALLS</b> Medium Thin crust	
<b>INTERIOR</b> Distinctive of variety	<b>INTERIOR</b> Moist and tender	
<b>Yeast Bread</b>		
<b>TOP</b> Golden brown Evenly round and smooth Crust 1/8" thick	<b>GAS HOLES</b> Small to medium and evenly distributed	Sweet, nutty; slight yeast aroma
<b>EXTERIOR</b> Sides pale brown Even "shred"	<b>CELL WALLS</b> Thin	
<b>INTERIOR</b> Creamy white or distinctive of ingredients Light in weight in proportion to size	<b>TOP</b> Crisp and tender  <b>INTERIOR</b> Moist and resilient	

APPEARANCE	TEXTURE	FLAVOR
<b>Pies</b>		
<p>CRUST Delicate brown Rough surface with small blisters 1/8 to 1/4" thick</p>	<p>FLAKINESS Medium; layers are evident Very tender</p>	<p>Bland, distinctive of fat used</p>
<p>FRUIT FILLING Fruit intact; as placed in pie Filling retained in pie At least 3/4" high</p>	<p>OVERALL TEXTURE Tender and soft Juice smooth and thick like a soft pudding</p>	<p>Distinctive of fruit used; mild spice flavor</p>
<b>Shortened Cakes</b>		
<p>TOP CRUST Slightly rounded near center</p>	<p>GAS HOLES Small and evenly distributed</p>	<p>Sweet, mild flavor; a butter flavor may emerge if butter used</p>
<p>EXTERIOR Pale to golden brown Light in weight in proportion to size</p>	<p>CELL WALLS Very thin</p>	
<p>INTERIOR Color distinctive of ingredients used</p>	<p>CRUMB Very smooth, slightly moist; "velvety"</p>	
<p>DEVIL'S FOOD Interior mahogany red</p>	<p>DEVIL'S FOOD CRUMB Slightly coarse and dry</p>	<p>DEVIL'S FOOD Slightly sweet and flavor of chocolate</p>
<b>Angel Cake</b>		
<p>TOP Slightly rounded</p>	<p>AIR CELLS Vary in size; small to medium</p>	<p>Slightly sweet; vanilla or almond flavor apparent</p>
<p>EXTERIOR Golden to medium brown Rough and slightly cracked</p>	<p>CELL WALLS Very thin</p>	
<p>INTERIOR Very white unless other distinctive ingredient used</p>	<p>CRUMB Tender, "melt in mouth"</p>	
<b>Sponge Cake</b>		
<p>TOP CRUST Slightly rounded</p>	<p>AIR CELLS Fairly small; uniformly distributed</p>	<p>Delicate lemon flavor when lemon flavor used; slight egg flavor de- tected if lemon not used; slightly sweet taste</p>
<p>EXTERIOR Light golden brown Rough and slightly cracked</p>	<p>CELL WALLS Fairly thin</p>	
<p>INTERIOR White to yellow unless other dis- tinctive ingredient used</p>	<p>CRUMB Tender</p>	
<b>Cookies</b>		
<p>TOP Rough; some rounded and smooth, depending on ingredients</p>	<p>DROP AND BAR Soft, chewy; interior tender</p>	<p>Sweet; mild, characteristic of ingredients</p>
	<p>REFRIGERATOR Crisp, crunchy</p>	
<p>EXTERIOR Uniform size and shape Delicate brown top and bottom; no flour streaks</p>	<p>ROLLED Crisp exterior with tender moist interior</p>	

## PROBLEMS AND THEIR CAUSES

APPEARANCE	TEXTURE	FLAVOR
<b>Muffins</b>		
PEAKED TOP Inaccurate measuring Too much flour; too much batter in pan or too small pan Overmixing	TOUGH COARSE TEXTURE Overmixing Inaccurate measuring (too much flour)	OFF FLAVOR Inaccurate measuring Rancid fat
SMOOTH, DULL SURFACE Overmixing	TUNNELS Overmixing Batter too deep	
"WAXY CRUST" Too much egg Uneven mixing		
<b>Biscuits</b>		
UNEVEN SHAPE Careless portions Overmixing	TOUGH BREAD CRUMB Inaccurate measuring Too much flour	OFF FLAVOR Rancid fat
DARK BOTTOM Dark pan used for baking; poor heat circulation	COMPACT, TOUGH CRUMB Overmixing	BITTER Excess or undissolved baking soda
BROWN FLECKS Undermixed Undissolved baking soda on top	THICK CRUST Oven too cool	
LOW VOLUME Not enough leavening Too much shortening Too much mixing	HEAVY Too little leavening Too much mixing Too much flour Lack of shortening Too much liquid	
	NOT FLAKY Too little shortening Too much/little mixing of shortening with flour	
<b>Quick Breads</b>		
PEAKED TOP Inaccurate measuring Too much flour Too much batter in pan or too small pan Overmixing	HEAVY, COMPACT TEXTURE Underbaked Inaccurate measuring	OFF FLAVOR Rancid fat Inaccurate measuring Stale ingredients
SMOOTH, DULL SURFACE Overmixing	STICKY, SUGARY SURFACE Inaccurate measuring Improper cooling	
DEEP CRACKS Baked too rapidly Oven not preheated	COARSE, TOUGH TEXTURE Overmixing Inaccurate measuring	
	TUNNELS Overmixing Batter too deep	
<b>Yeast Breads</b>		
MISSHAPEN LOAF Inaccurate measuring (too much/little flour)	COARSE Insufficient kneading Over-risen	OFF FLAVORS Old yeast Dough over-risen

APPEARANCE	TEXTURE	FLAVOR
<b>Yeast Breads (cont.)</b>		
Over-risen before baking Oven too hot No salt	Oven too cool Too much flour	Too warm a temperature during rising Too slow oven Underbaked
SPLIT CRUST Oven too hot at beginning Loaf too large for pan	TOUGH Too much flour Poor kneading methods	Milk not scalded sufficiently Bread wrapped when still warm
TOP CRUST WRINKLED Cooled too quickly or in a draft Rising period too short	HEAVY, COMPACT Insufficient rising before baking Poor yeast Yeast killed Wrong flour	
STREAKED CRUST Excess flour in kneading and shaping Dough dried on top while rising Excess greasing while rising	DOUGHY Underbaked; allowed to "steam" in pans; should be removed from pan when taken from oven	
	LOW VOLUME Temperature too low when dough is rising Yeast killed Not kneaded well to distribute yeast and develop gluten	
	LARGE AIR CELLS Lack of salt to control growth of yeast Lack of adequate kneading Allowed to rise too long	
<b>Pies</b>		
SHRINKING Too much handling Stretching pastry as put into pan Storing dough in refrigerator too long Too much water added to dough	GREASY Too much shortening	OFF FLAVOR Rancid fat
	HARD Inaccurate measuring Too much water	STALE FLAVOR Poor quality ingredients
COMPACT, DOUGHY Underbaked Too much liquid	SMOOTH Overkneaded Overmixed	RAW FLAVOR Underbaked Inaccurate measurements
	TOUGH Overhandled or rerolled Too little fat Too much water Too much flour used to roll dough	
	CRUMBLY, TOO TENDER Inaccurate measuring Too much shortening Used oil instead of shortening Shortening cut in too fine	
<b>Shortened Cakes</b>		
UNEVEN Oven rack not level; batter spread unevenly; pan warped	COARSE GRAIN Inaccurate measuring (too much leavening or sugar) Undermixing Insufficient creaming of fat and sugar	

**APPEARANCE****TEXTURE****FLAVOR****Shortened Cakes (cont.)**

PEAKED OR CRACKED TOP  
 Inaccurate measuring; too  
 much flour  
 Too little liquid  
 Batter overmixed  
 Oven too hot at beginning

HEAVY  
 Overmixed  
 Underbaked

CAKE FELL  
 Inaccurate measuring (too little  
 flour; too much liquid, fat, sugar  
 or leavening)  
 Underbaked

UNEVEN BROWNING  
 Ingredients not well blended;  
 poor heat circulation

INTERIOR COLOR UNEVEN  
 Ingredients not well blended

TUNNELS  
 Overmixing  
 Inaccurate measuring  
 Too much flour

TOUGH  
 Inaccurate measuring (too  
 much egg; too little  
 sugar or fat)  
 Overmixing

HEAVY AND COMPACT  
 Inaccurate measuring (too  
 much fat or sugar)  
 Underbaked  
 Overmixed  
 Oven temperature too high

CRUST STICKY  
 Too much sugar

**Angel and Sponge Cakes**

LOW VOLUME  
 Baked at too low temperature  
 Too short cooking time  
 Too little cream of tartar  
 Egg whites not beaten to stiff peaks

COARSE  
 Oven too hot  
 Batter overmixed

**Cookies**

NOT UNIFORM SIZE  
 Inaccurate measurements; poor  
 portioning; uneven shaping

UNEVEN BROWNING  
 Baking pan is dark  
 Poor heat circulation

FLOUR STREAKED  
 Undermixed  
 Too much flour

DEEP CRACKS  
 Overmixing  
 Overbaking  
 Too much flour

TOUGH  
 Overmixing  
 Too much flour  
 Too little fat

DOUGHY  
 Underbaked  
 Too thick

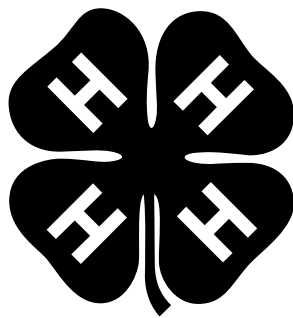
DRY, HARD  
 Too much flour  
 Too little liquid  
 Overbaking

CRUMBLY  
 Too much fat  
 Too much sugar

SUGAR CRYSTALS ON TOP  
 Too much sugar for quantity of flour

OFF FLAVOR  
 Inaccurate measuring of salt  
 Rancid fat

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**More boys and girls belong to 4-H than any other youth group.**