Many factors determine bread types

ne of my girlfriends asked me to find out why there are so many kinds of breads, each with different characteristics— why are some breads dense, some light, some chewy, some dry, some fresh, some crusty, etc. So here I go in my attempt to answer this question.

There are many factors that contribute to the character of the finished loaf of bread. These would be: the type of grain used to make the flour, the amount of gluten in the flour, the age of the flour, the amount of salt in the dough, the amount of fat in the dough, the natural sugar in the starch, the leavening agent used in the dough, the temperature at which the bread is allowed to rise, how much the bread is allowed to rise during the proofing process, how hot the oven is and what type of oven is used, whether a coating was put on the crust and how the bread was stored after baking.

The greatest single factor in the final bread result is the type of grain used to make the flour. The amount of glutenforming protein in the flour will determine whether the bread is light and great in volume or more dense. The more gluten, the lighter the bread. Throughout history, the richer families always had the lighter breads and the poor were left with the heavier, browner loaves.

The performance of this gluten is affected by the age of the flour—maturity causes beneficial chemical changes to the gluten.

Because of the effects of salt on the protein-digesting enzymes, an unsalted dough will usually yield a denser bread What's cookin'

Gerry Kentner



than a salted dough. Fats added to dough have a tenderizing effect. The fat helps stop the strands of gluten from becoming too long and elastic. So a bread with butter, lard, oil or liquids such as milk in the dough will be less "tough" than doughs without any of these fats.

Starch is the major component of flour. The starch has sugars which are naturally present and are necessary to the yeast for life and fast breeding. These sugars also contribute to the final texture and appearance of the bread. The carmelization of these sugars in the oven are what gives colour to the crust.

Every leavened bread must have some type of agent that causes the bread to rise. This can be yeast, which causes an alcoholic fermentation or leaven (such as baking powder) which causes a lactic fermentation. Yeasts, but not baking powder, contribute to the flavour of the bread. The flavour is developed by the amount of fermentation, not the amount of yeast. So a bread that is fermented over a number of hours or days (like sourdough bread) will have a stronger flavour than a short-time yeast dough.

The temperature that the bread is allowed to rise at will affect its size and

flavour. If it is too hot, the yeast will be killed and no rising will occur. It is possible to ferment the yeast in a cold situation (even preferable for certain types of bread) but the usual procedure is a warm environment.

The fermentation of natural leaven bread is more sensitive than bread made with brewer's yeast. However the flavour is also affected by temperature because if it is too cold, the lactic fermentation will cause the bread to be sour and taste "off".

When a bread is rising, it should only double in size. If it is allowed to rise to its full potential, this is called over-proofing and it is likely that the bread will collapse when it encounters the heat of the oven.

When a bread is baked, the intention is to get heat to the center of the loaf as quickly as possible and from as many directions as possible in order to kill the yeast before it causes too much expansion. This is why many bakers use wood-fired brick ovens. The brick radiates and retains heat much better than modern metal ovens. This allows the bread to receive the initial fierce heat it requires, then it slowly reduces in temperature as the baking process continues.

If a bread was coated with an egg wash before baking, it will have good colour, but the crust will be softer. Once a bread is baked, it immediately begins to go stale. This is caused by a chemical process involving the molecules of the bread. Refrigeration speeds up the staling process, storing at room temperature slows the process and freezing stops the process of staling.

Have fun and keep cooking!

www.kentnerscatering.com

French onion soup

Ingredients

- 1/3 cup butter
- 4 large Spanish onions, sliced
- 12 cups beef stock
- 1/4 cup dry sherry
- 1 tsp peppersalt to taste
- sliced French bread
- grated mozzarella cheese

Method

Melt the butter in a large pot. Sauté the onions on medium heat, stirring frequently, until golden, scraping bits from the bottom of the pot as you go. Be careful not to burn. Add beef stock, sherry and pepper.

Simmer two hours.

Spoon soup into individual bowls, place a slice of fresh bread on the soup and top with grated cheese. Place under the broiler for a few minutes until cheese is melted and golden.

Serve immediately.

GEORGETOWN SOCCER CLUB 2000 SPONSORS

2400 players thank our sponsors

J.D.'S PAINTING

J.V. CLOTHING

A&P STORES LTD A&S ENGRAVING & TROPHIES ALCATEL CDA INC ALL CALL COMMUNICATIONS ALLISON'S FARM MARKET ANDREW MURRAY MOTORS LTD APPLE AUTO GLASS ARGYLL DENTAL OFFICE ASBUILT MECHANICAL CLIMATECARE AZTEC COMPUTERS BANK OF MONTREAL BAYNES PHYSIOTHERAPY BEAVER LUMBER BELLAMYS MARKET HOUSE GRILL BRIAN'S FOOD BASICS BURGER KING RESTAURANT C.I.B.C. C.P.I. CANADA CACTUS CAFE **CALEDON LABORATORIES** CAMERON CHIROPRACTIC CLINIC CANADIAN SPORTS SALES CANTESCO KINGS CARPET BARN CARPET ONE CASTLE NETWORKING CAVENDISH FARMS CHIOVITTI BANANA CO LTD CLICK BOND COMPLETE KARPET CARE CONCEPT FORD COUNTERFITTERS CREATURE COMFORT CO CREDIT LODGE 219 CREDIT VALLEY SHRINE CLUB MARILYN@CUSTOMCAKES.COM DAIRY QUEEN DALGAS ENTERPRISES INC

DIE MOLD TOOL DITTO'S DODGERS - STONES THROW FARM DOORN GARDEN CENTRE DOWNTOWN SPA & RELAXATION CENTER DUNLOP INSURANCE LIMITED E-AUCTION C/O DAN McKENZIE **ELLIOTT CUSTOM BROKERS** EMERALD ISLE FAMILY OPTICAL FENDLEY FLORISTS FIRST CHOICE HAIRCUTTERS FLOYD'S BODY SHOP FOODSTUFFS "GEORGE WAGNER, C.A." GEORGETOWN DANCE COMPANY GEORGETOWN DENTURE CLINIC GEORGETOWN FRUIT MARKET GEORGETOWN LOBLAWS GEORGETOWN MARKET PLACE MALL GEORGETOWN NATUROPATHIC WELLNESS CENTRE GEORGETOWN RACQUET CLUB **GEORGETOWN TOYOTA** GEORGETOWN VOLKSWAGON GLOBAL PET FOODS GOEBELLE, MaCADAM, ALEXANDER LLP GREENHOUSE COUNTRY MARKET H &S EQUIPMENT HALTON HILLS SPEECH CENTER HANK'S INCOME TAX SERVICE HARVEY'S-SWISS CHALET HOLLIS & ASSOCIATES HOME HARDWARE UNITED LUMBER HOWELL PIPE & SUPPLY INDUSTRIAL REFRIGERATED INFORMIX SOFTWARE INTRAVERSE

DAVID WALSH ALLSTATE INSURANCE

JOHNSON & ASSOCIATES JUMBO VIDEO KENDALE MECHANICAL KIWANIS CLUB OF GEORGETOWN LADIES LEGION AUXILIARY BR. 120 LEFERINK TRANSFER LEGION, ROYAL CDN BRANCH 120 LIONS CLUB GEORGETOWN LIVING LIGHTING LODUCA CUSTOM TILE LOR-DAN HEATING LTD. MCDONALDS RESTAURANT McKAB McMASTER'S MEATS & DELI MUSCLEMAG (OXYGEN) MUSCLEMAG INTERNATIONAL NORTH HALTON ROOFING NORTHERN VIBRATOR NORVAL CONVENIENCE NU-TECH OLLIE'S CYCLE &SKI LTD **OLON INDUSTRIES** ON TIME PERSONNEL OPTIMIST CLUB OF GEORGETOWN C/O FLOYD NELSON PAUL ARMSTRONG INSURANCE BROKERS LTD PERSONAL TRAINING COMPANY PHIL KARDA STATE FARM AGCY LTD. PILLAR TO POST PROFESSIONAL HOME INSPECTIONS PINE CONE STUDIOS PREMIER PETERBILT INC. PROFESSIONAL ARTS PHARMACY PROVINCIAL PARTITIONS QUASAR SOFTWARE RAINBOW TROPHIES REMAX BLUE SPRINGS REALTY

ROTH DIAMOND TOOLS ROYAL BANK RUFFIN'S PET SUPPLY SABRE-TOOTH TIGERS SANDY'S ANGELS SILVERCREEK COMMERCIAL INTERIORS INC SOCCER ELITE SPARTAN MACHINE CO SPECTRUM STARS - C/O. SPECTRUM POWER COATERS SPRIGGS INSURANCE "STATE FARM INSURANCE, LORA GREENE" STOYLES CARPENTRY SUN PAC FOODS LTD SWEET DESIGNS **T&T POWER PRODUCTS** T.A.C. CONTROLS & AUTOMATION TARTAN COLOR & CHEMICAL INC. TERRA COTTA COOKIE CO. LTD THE CELLAR THE CO-OPERATORS C/O RAY JOHNSON & ASSOCIATES THE FRECKLED LION CHILDREN'S BOOKSTORE THE HEARING CLINIC TIM HORTONS TIP- TELEPHONY INTEGRATION PRODUCTS TOOL & ASSEMBLY TRAVEL HUT UNILOCK VAN WISSEN NURSERIES & GARDEN CENTRE VANBRO PAINTING CONTRACTORS LT. VANDERBURGH FLOWERS & GIFTS VC ORTHODONTICS WAL-MART WARREN J. SMITH WEXFORD PHARMACY WILDWOOD REALTY WYATT HILTS ELECTRIC YOUNG'S PHARMACY GUARDIAN ANGELS

SPECIAL THANKS TO TIM HORTON'S FOR THEIR GENEROUS DONATION TO THE CLUB

YOUR SUPPORT OF THE ABOVE SPONSORS IS APPRECIATED