

Section 3

Dough Management

Dough is the foundation of our pizza. Dough is the least expensive part of the pizza. Never use dough that is not perfect. If the dough is not perfect, throw it out. Without a good crust, pizza quality decreases. Our continued success in the pizza market is dependent upon quality and service.

A full batch of dough costs about \$7.00 to make, if the dough isn't perfect it could put you at risk to potentially lose 31 customers.

**** If you are having problems with your dough do not hesitate to call the office at 1-501-605-1175.**

TIME AND TEMPERATURE

TIME and TEMPERATURE are the most important parts of making dough. The amount of TIME that you mix the dough and the TEMPERATURE of the water when you first add it to the mixer, has a lot to do with the texture of the end product.

The TEMPERATURE of the dough when mixing determines how the dough will rise and how long it will last (TIME).

DOUGH MAKER

Job Description

The dough maker must be able to fully understand the procedure for creating the perfect batch. Must be capable of lifting forty pounds. Must be able to use the chart to figure the amount of dough needed. Must keep the dough area clean.

General Information

The great quality of our crust is the basis of our success as being #1 in Product, Service and Pride. Our product is what brings our customers back time and time again. Your job is to make sure our customers receive a quality product time and time again. The impression the customer forms of product will depend on the impression they form with the dough person's ability to make the perfect crust. The most important thing a dough maker can do when preparing a batch of dough is to fix it right! Effective concentration is the key to successful dough making. We must ensure the ingredients are correct when we prepare it from the time it goes into the mixer until the time it goes into the cooler. Never give the customer the impression that we are too busy to fix it right

REMEMBER, THE CUSTOMER IS THE REASON WHY WE ARE HERE

DOUGH RECIPE

30 or 40 Quart

NEVER ATTEMPT TO MIX A DOUBLE BATCH OF DOUGH
NEVER ADD MORE WATER, FLOUR OR OLD DOUGH TO THE RECIPE

IF YOU DO EITHER OF THE ABOVE YOU WILL DESTROY THE MIXER

Pour 6.25 pounds of water into the mixing bowl.

Add (1) dough blend pack to water.

Let soak for one minute then mix well with wire whisk. Let stand for one minute.

Add 12.5 pounds of flour.

Mix for two (2) minutes on speed #1.

Add 4 oz. of oil weighed out and mix for nine (9) minutes on speed #1.

Check the TEMPERATURE of the dough ball. It should be between 70 and 80 degrees.

During the summer months dough will need to be closer to 70 degrees and during the winter months dough will need to be closer to 80 degrees.

If it is below 70 degrees or above 80 degrees, do not use the dough.

Raise or lower the TEMPERATURE of the water you are using to raise or lower the TEMPERATURE of the end product.

ICE

In some stores refrigerated water may not be enough to lower the dough temperature. In this case you may use ice. We suggest that you use 1 pound increments to get the desired effect.

Note: One pound of ice = One pound of water.

Place finished dough on prep table, cut and ball (DO NOT TEAR DOUGH) to appropriate size and place in dough trays.

SIZE	7 INCH	11 INCH	14 INCH	16 INCH
WEIGHT - SLANT SIDED PAN	4.5 oz.	12 oz.	19 oz.	25 oz.
WEIGHT - STRAIGHT SIDED PANS	5 oz.			

NUMBER PER TRAY	15	8	6	5		
SIZE	7 INCH	10 INCH	11 INCH	12 INCH	14 INCH	16 INCH
SCREENS	5 oz.		12 oz.	14 oz.	21 oz.	27 oz.
NUMBER PER TRAY	15		8	8	6	5

If you must leave the dough before you finish cutting it, always cover it, and make sure that the temperature never rises above 80 degrees.

Mark each dough tray with the size and date.

Cross stack the trays in the cooler until dough reaches 55 degrees (uncovered).

For stores with Reach-In Coolers place the trays in the cooler uncovered as soon as they are full.

After 5 minutes, cover and stack the trays.

If you are not going to make any more dough clean all surfaces on the mixer. Clean the mixing bowl and dough hook in hot, soapy water.

Dough must **proof for 18 hours** before use.

SHELF LIFE FOR DOUGH IS FOUR (4) DAYS.

NEVER USE DOUGH THAT IS OLDER THAN 96 HOURS

Dough made today is for use tomorrow or the next day.

If you need additional information or help call the office at 1-501-605-1175.

HELPFUL HINTS TO DOUGH MANAGEMENT

What Is Proofing?: Warming the dough so that it will rise to double in size.

Yeast is a living organism, it likes warmth. The warmer the yeast gets, the faster the proofing. The colder the yeast gets, the slower the proofing.

TIME and TEMPERATURE For Proofing: To proof dough, take it out of the cooler and stack it in the store to let it start to warm (TEMPERATURE).

The TEMPERATURE of the dough ball should get to **60 to 70 degrees**.

The TIME it takes for this will vary from store to store due to different regional locations and climates. Your Pizza Pro Corporate Trainer will aid you in finding the best location in your store for dough proofing. A proofing log is included in the forms book for use in dough management.

When the TEMPERATURE of the dough ball reaches **60 to 70 degrees** put it back in the cooler to slow the proofing.

Dough TEMPERATURE When Baking: When making a pizza the TEMPERATURE of the dough ball should be between 60 and 70 degrees. If it is lower than 60 degrees, you need to proof in a warmer spot in the store and for a longer period of TIME. If it is above 70 degrees, you need to shorten the proof TIME.

DOUGH TERMS

Brown Spots: Browning of the bran particles caused by exposure to air.

Bubbling: Formation of large gas pockets in the dough during baking. It can usually be prevented by complete proofing, docking, and preventing crusting. Bubbling is a problem mainly in yeast leavened products, especially those held under cold storage.

Cracker Crust: A flat, crispy baked crust resembling a cracker in taste and texture. Due mainly to under-proofing the dough (less than double in volume). Also due to over-proofing dough (more than 2 /12 times in volume).

Crusting: A thickening or hardening of the dough ball surface. Caused by storage in low humidity coolers or by air moving over the surface, or dough not being properly covered.

Docking: Working the dough to break or redistribute larger pockets of air in the dough to prevent or control bubbling. Also referred to as perforating.

Double In Volume: Proofing until dough is twice the size in volume as when originally rounded. At double in volume, the dough ball in the tray should be 25% higher and 25% wider.

Fermentation: The proofing action which results in a yeast bread taste, texture and appearance.

Gluten: Strands of protein in the dough that can trap bubbles of carbon dioxide given off by yeast. Wheat is the only grain with strong gluten protein.

Green Dough: Dough which has not been proofed to double in volume. Especially meaning new dough. The color is normal.

Proofing: The act of setting the dough in a warm area until the yeast action causes the dough to become larger in volume. Dough is fully proofed when it is double in volume.

Sheeted Dough: Dough which has over-proofed to the extent that the patties flow together and cover the entire bottom of the tray. DO NOT USE!

Shelf-Life: The length of time the dough will produce a satisfactory product in the average store.

Shelf-Life of Pizza Pro dough is (4) FOUR DAYS.

Pre-made Thin Crust and Deep Dish Crust has a shelf life of 14 days thawed or 6 months frozen.

Yeast: A living organism that feeds on the sugars and starches in the dough and gives off carbon dioxide gas which causes the dough to expand (rise). Yeast grows best in warm, moist environments (about 70-90 degrees).

PIZZA PRO DOUGH

Pizza Pro is high quality product requiring special care and handling. Dough is the foundation of our pizza, and it is the least expensive part. If dough is not correct, throw it out.

Cool Water: Keep tubs of water in the cooler to use when making dough. Cold water must be used in the summer time to keep the dough temperature down. When refrigerated water is not enough, you may use ice in one pound increments.

***** One pound ice = One pound water**

If dough is under 70 degrees or above 80 degrees when it is through mixing, it cannot be used.

Dough Proofing: Proofing is a physical and chemical change in the dough during mixing. The dough expands in volume as the yeast organism ferments the available sugars to produce carbon dioxide gas bubbles, which are trapped by the gluten proteins in the dough. As more gas is produced, the dough keeps expanding until finally the gluten becomes overstretched, weakens, and collapses. It is important to use dough when it is in the right stage of proofing.

Why Proof Dough?: The characteristic flavor, texture and volume of the PIZZA PRO dough results from the proofing (fermentation) action of the yeast microorganism.

There is no desirable yeast flavor, airy texture, or good volume unless the dough has been properly proofed.

The difference in flavor between an un-proofed dough and a proofed dough is like the difference between grape juice and wine.

Also, an improperly proofed dough is more difficult and time consuming to make up and may result in more time being spent in oven tending.

How Much Do You Proof?: Enough dough will be proofed to support 24 hours of sales. If you are having difficulty figuring out how much dough will support 24 hours of sales, contact PIZZA PRO, Inc. at 1-800-777-7554.

Characteristics of Over-Proofed Dough: As the dough begins to over-proof, the sides of the individual dough patties begin flowing together and the surface of the dough patty becomes sticky.

Characteristics of Under Proofed Dough: Dough that has not doubled in size or volume. Dough that bubbles as it cooks. Under-proofed dough will shrink when put into a pan.

Time/Temperature For Proofing: Since yeast is a living organism, it likes warmth. The warmer the yeast gets, the faster the reactions take place that cause proofing. The colder it gets the slower it raises the dough.

Where Do You Proof Dough?: As you have already learned from the section on TIME and TEMPERATURE, the dough is proofing from the time it is made. It is proofing in the cooler, but slowly.

ALWAYS USE A COVER TRAY ON THE DOUGH

Removing dough from the walk-in will speed up proofing. The warmer the temperature where the dough is placed the faster it will proof.

How To Pre-Proof Dough: When pre-proofing dough let the dough proof in volume (25% higher and 25% wider). You can push in on the center of the dough ball and it is soft to the touch. Watch it carefully, so that it can be returned to the walk-in at the right time.

All trays of dough in a stack will not proof equally because they are exposed to different temperatures. The bottom and top trays usually proof faster than the middle trays. Always arrange the dough so that the most proofed dough is on top of the stack and the least proofed is on the bottom.

New dough will always be placed on the bottom of the stack.

Dough can be removed from the walk-in cooler, partially proofed at room temperature, then returned to the walk-in cooler for later use.

Place a stack of dough in the back room (slow proofing).

Double-Broiling: Alternate dough trays with hot water and dough patties. Put very hot water in an empty dough tray, cover with a tray of dough, cover with a tray of hot water, cover with a tray of dough, etc. The dough must be watched very closely. Place dough trays in the warmest part of the store.

NOTE: The dough will continue to rise as long as the “TRAY” is warm. Anytime the tray is heated above room temperature the dough will proof at a faster rate and dough must be used within a couple of hours.

Air Circulation: A stack of dough needs three (3) inches of air circulation on all four sides. There should also be air space under the stack and above the stack. When there is no air space on one side, the dough on that side will get warm, and the yeast will become active. The dough patties on that side of the tray will proof faster than the rest of the tray.

Preventing Over-Proofing: To slow down proofing use the following method. Cross-Stack or Off-Set in the walk-in cooler for no more than 15 minutes at a time. To help prevent crusting on the surface, mist the dough with “Ice Water.” Cross-Stacking or Off-Setting can be done twice a day at opening and closing to achieve maximum reduction in proofing.

Dating & Rotation: Always use the most proofed dough first. During daily set up all dough will be checked and rotated so that the most proofed dough is used first. Date the outside of the dough tray to insure that the oldest is used first. Follow the “First in, First Out” rule.

Preventing and Eliminating Crusting: Crusting is a severe drying out of the top layers of the dough patty. The dough patty surfaces become crusted when exposed to less than 93% relative humidity or excessive air movement in the walk-in cooler. Dry conditions in the store during proofing can also cause crusting.

Crust Side Up and Skin Side Down: A skin on the surface of the dough patty is slight drying or thickening of the surface which helps the dough patty hold its shape and retain gasses. The skin develops when the dough is exposed to air for proper chilling in the walk-in cooler.

Speckled Dough: Dough will get tiny brown spots on the surface as it ages. They are tiny particles of bran which oxidize (turn color) when they are exposed to air. The bran browning becomes visible about the third day after the dough is made. It will increase in intensity over the shelf life of the dough. It is harmless and does not effect the product quality. The browning is a good indication of the age of the dough.

DO NOT USE DOUGH THAT HAS PROOFED FOR MORE THAN FOUR DAYS

SOLVING DOUGH PROBLEMS

Dough Balls Don't Rise Enough: Adequate fermentation has not occurred.

Yeast in the “Dough Blend” could be dead.

Dough must ferment for 18 hours before use.

Dough must be proofed before use.

Bring the temperature of the dough up to **60 - 70 degrees**.

Dough Balls Rise Too Much: Excessive fermentation.

Too much fermentation.

Cool the dough down so that the temperature is **below 60 degrees**.

DO NOT USE OVER-PROOFED DOUGH.

Do Not hesitate to call the office for additional information or questions.

Crust Sticks To Pan Or Screen:

Season New Pans:

Use a coat of Vegalean Spray or other non-stick spray on new pans for the first two weeks of use.

If used pans start to stick, they should be re-seasoned.

Large White Pockets Appear On The Bottom Of Pan Pizza Crust: The cause of this is a build up of air between the dough and pan bottom which causes an area of the dough to be out of contact with the pan.

To eliminate this, when placing the dough in the pan insure all air pockets have been removed. Do this by lifting the crust and then gently laying it back into the pan. Do not attempt to press the air out by hand or make holes in the crust to allow the air to escape.

Dough Balls Have A Crusty Surface: Caused by excessive air contact.

Always be sure the dough is covered.

If this is happening after cross stacking, shorten the time the dough is cross stacked.

Spray the dough with a light coat of ice water.

Crust Has A Doughy Layer (Just Under The Sauce): Caused by inadequate heating or cooking of the dough. Slow down the conveyer speed and lower the oven temperature to compensate, **contact the office for possible suggestions.**

Some of the Causes

Dough, Sauce or Cheese is too COLD.

Dough should be warmed to 60-70 degrees before use.

Cheese should not be frozen.

Dough Too Elastic Or Springy: If your dough shrinks excessively after slapping, pressing or rolling it is too cold or too little water was used in making the dough.

Warm the dough to 60-70 degrees (PROOF).

Crust Forms Bubbles While Baking: Improperly proofed dough.

It is either under-proofed or over-proofed.

Or it needs to be docked harder.

DEAD YEAST

At times, the yeast in the dough blend will become less active or “dead.” This can be caused by out of date product or incorrect storage.

This can cause the following:

Dough will not rise during proofing.

The bottom of the pizza will be stark white after baking.

The crust will not rise.

The crust is very weak or limp and will not hold the weight of the toppings.

After making sure that this is the cause, (over and under proofing the dough will cause these symptoms as well) purchase a dry active yeast at your local store until your next food delivery. **Once again, do not hesitate to call the office if you need assistance in determining your dough problem and a solution.**