

Clouds Over Zion

-by Raymond Huggett

Transcribed from a tape of a sermon given at Oak Grove Congregation / October 17, 1971

I spent one whole day in fasting and prayer up in the mountains there by myself out in the woods. I took my three books with me that morning. I took time to build kind of a rock altar that I laid them on as I studied and meditated and prayed. And I began to sense some things about the Kingdom of God. I had to come down that night, and preached on the principles, the principles of the Gospel. They asked me to preach on that and I did. But I preached on the principles of life for a new depth and appreciation came to me on those principles on that occasion.

I felt a great endowment of the Spirit of God, and the next morning we had a wonderful prayer meeting. One of our apostles was present presiding over that prayer service, and I was aware of what was taking place. I felt the movement of the Spirit of God among his people. I saw the apostle before me, but then I had a strange experience, because it seemed as though the end of that tabernacle was just rolled back. I looked right past the apostle, although I was much aware of his being there, and I saw out into endless space. I saw beyond the scope of vision of the eye. I saw into the bosom of eternity. And I marveled that God could part the mantle of his veil and permit an individual such as myself to catch a glimpse for a few fleeting seconds of that which is beyond time.

And I saw a ray of light around which all things centered, so bright you couldn't look up at it directly. And I wondered, what is this? And I saw people too, multitudes of people. It looked like numberless, countless numbers of people, gathering, just seemed to be drawn toward this light. And even as these questions formed in my mind it was as though someone spoke into my inner ear and said these are the holy men of all ages gathering before the Throne of Grace.

Oh, I've read about the fact that God is beyond time. I even read in the scriptures that he knew the past, the present, the future all together. I had never known it this way before. I didn't know I could even see it, and could see the fact that all those men who had already passed on, those men who were present, and I sensed their presence, and those who were yet unborn could all be related at one time to God. And this great company of the faithful were united in their purpose preparing for the great culmination of God's marvelous and mysterious act, the great consummation of Zion.

Well, I marveled at this experience and I saw, too, the outline of what I perceived to be the Holy City. And you know, it was shrouded with clouds and I knew it must be a beautiful city, and I felt what a shame to think these dark depressing clouds hang over and occlude most of it out so it's obscure to the vision, and I wondered what it meant.

And you know, I was told some things and these clouds seemed like such little things that I was really surprised that we hadn't removed them long ago. But I was told that these clouds have to do with the way we teach our children regarding such simple things as keeping the Sabbath, to keep it holy and that our children grow up and really never understand that the Sabbath is the Lord's day. That it is the day that commemorates the coming forth of our Lord from the tomb. It's not our day at all. It's HIS DAY. That our bodies need to be refreshed, replenished. We need to be restored spiritually. We need to be related to his glorious coming forth on that day. That it's not just another day of work or recreation, but it's a day when we need to have communion with God. And I was surprised that such a little thing could sometimes stand in the way of the great culmination of Zion.

And I was told that our concept of stewardship has often been narrowed to a mere Mosaic approach to finances. Just an accounting of money instead of the joyous accounting for the totality of life and for the relating of our life to his Kingdom's purpose and our commitment fully, of which the finances is but one

expression of that commitment. And so our children sometimes grow up not knowing what it is to be a steward under God in the world in which we live, but only think about giving money or filling out papers.

And somehow we've failed to teach our children about the sanctity of marriage and its true purpose. And our children grow up thinking, well, if this doesn't work, we'll try another one. And somehow they don't seem to understand or to appreciate that marriage in the truest sense is a sacramental relationship. It's where God enters into a covenant between two people and where they can give themselves fully and wholly and express themselves without remorse of conscience and guilt, and feelings of fear, and can have a union that's joyful, that sustains, that's complimentary opposites one to another, that fulfills and gives joy and happiness and hope and those things which give strength to each individual who takes part in a true marriage.

Sometimes we haven't taught our children how to preserve themselves for this experience so they don't have to look back with remorse and sorrow and broken hearts upon their experimentation of an earlier day. And such things as not teaching our children these principles have indeed detracted from the culmination of the Zionite expression.

Sometimes we've not become true disciples because we've lacked discipline of mind and body, and we've been controlled by physical appetites rather than preserving this temple of God, holy and sacred and committing it to his expression. These things were impressed upon me as well.

And it was impressed upon me that sometimes we accept the standards of morality which the world expresses and we have not been true to our covenant relationship regarding that communion which we promised to have with Christ and commitment to His cause, but instead have sometimes compromised these principles and accepted those things which are not of His Kingdom.

Then, too, I was told that we have failed to worship with a full heart, but have held reservations which have limited our spiritual insights and withheld from us the blessings of His Kingdom, the spiritual blessings which are so necessary and which do come to those who have faith in Him and who will make that kind of preparation which brings them into being.

And then, too, we sometimes fail to teach our children the fact that they must be dedicated. We must remind them occasionally what happened when we blessed them or had them blessed by the elders in the church. How we were presenting them to God, how we were accepting responsibility to bring them up in the nurture and the admonition of the Lord, and to bring them into communion with God which is our responsibility for which we shall be held accountable. And we have not taught them that in due time they should make a covenant of sacrifice, that their covenant by sacrifice will be drawn together in the great Zionite relationship.

So one thing after another came before my vision and my understanding that day which gave me insight into the truthfulness of this great cause of the kingdom and which shall surely be fulfilled in our time. There are other things I'd like to tell you, insights that I received, but I see my time is slipping away.

Eating a low-carb diet almost always means one is not consuming enough fiber, which can lead to a cascade of health issues, including a higher risk of cardiovascular disease, constipation and/or diarrhea, and disrupted gut microbia.

Most prebiotics, which are essential for promoting the growth of beneficial gut flora, are found in carbohydrate-rich foods. Without adequate prebiotics, the gut microbiome may shift in an undesirable direction, contributing to various health issues including poor immune system functioning, inflammation, and autoimmune conditions.

Low-carb diets often lead to nutrient deficiency. Severely limiting or totally eliminating entire food groups from your diet puts you at risk for serious deficiencies in micronutrients, including selenium, magnesium, phosphorus, and vitamins B and C, and many other vital nutrients.

Low-carb, high-fat diets such as the keto diet can stress one's liver. With so much fat to metabolize, the diet could make any existing liver conditions worse.

Low-carb, high-protein diets such as paleo can put added strain on one's kidneys. The kidneys help metabolize protein, and the keto diet may overload them.

There is one other reason you should choose NOT to eat a low-carb diet. It is the most important factor of all. Eating a low-carb diet goes against the way God says you should eat.

If we threw out all of the above evidence, if we did not look at any scientific studies or tap into the wisdom of any medical doctors or dietitians, this reason alone should be sufficient to sway us away from choosing to eat low-carb.

I considered adding references at the end of this article to studies that provide evidence against eating low-carb, but decided not to. I do not want you to base your decision about a low-carb diet on the wisdom of man, but on the Word of God.

In Section 86 of the Doctrine and Covenants, God gives us direction for the most health-giving way to eat. Some parts of Section 86 might be open to different interpretations, but most of it is very clear and simple.

- **Alcohol and tobacco are not good for us.**
- **Hot drinks are not good for us.**
- **Eat fruits and vegetables with prudence and in season.**
- **Eat meat sparingly.**
- **Grain is the staff of life and particularly wheat for man.**

God says grain is the staff of life. Grain is to be the main foundation of our diets, particularly wheat. (This undoubtedly means whole grains with all the goodness God created in them, so feel free to cut out refined carbohydrate grain "products," which really are not grains at all.)

God also tells us to eat meat sparingly. These two directives clearly eliminate the possibility of thinking that a low-carb, high protein diet is God's best plan for us.

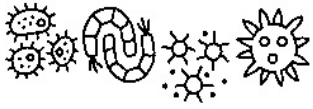
The bottom line is this: Will we choose to believe God or man?

Even if all the evidence points *against* what God says is true (which it does not), will we choose to believe the Creator of our bodies, the Creator of the universe, He who has all wisdom and all knowledge? 1 Corinthians 3:19 says, "*For the wisdom of this world is foolishness with God.*"

I encourage you to follow GOD'S wisdom and avoid the foolishness of man's wisdom. Do not be afraid to be obedient to God's counsel and make whole grains the center of your diet, with wheat being the mainstay. The promises for us if we do are amazing!

And all Saints who remember to keep and do these sayings, walking in obedience to the commandments, shall receive health in their navel, and marrow to their bones, and shall find wisdom and great treasures of knowledge, even hidden treasures;

and shall run and not be weary, and shall walk and not faint; and I, the Lord, give unto them a promise that the destroying angel shall pass by them, as the children of Israel, and not slay them. Amen (Doctrine and Covenants 86:3c-d).



Our Microbiome and the Word of Wisdom

-by Debbie Norman, Oak Grove, Missouri



Let me begin by saying I firmly believe the Word of God is our foundation for all truth. I believe we must hold up everything to the standard of God's Word. We can confidently accept the Word of God as truth over any wisdom of man, including scientific research. Research can be flawed and lead to skewed or false conclusions. Scientific understanding has and will continue to change dramatically over time, yet the Word of God stands firm and constant.

With that foundation, I would like to introduce you to one of the hottest current topics in scientific and medical research: our human microbiome. In recent years, there has been an explosion of new research in this area. Our microbiome is the community of diverse, dynamic, and individualized microorganisms (such as fungi, bacteria and viruses) that exists in and on every part of our bodies, from our skin, to our mouths, to our gastrointestinal tracts.

When most of us hear the words “yeast, bacteria, and viruses,” we think of bad microbes—the ones that make us sick. But there are also millions of good yeast, bacteria, and viruses that we need for health. We cannot live without them. These good microbes are not invaders, but rather beneficial colonizers in our body.

We now understand there are more microbes in our human bodies than there are cells. It is estimated there are 38 trillion microbes in our large intestine alone. To put this in perspective, there are 100 billion stars in our galaxy. That means we would need 380 galaxies worth of stars to match the number of microbes just in our large intestine.

Scientists now say that 70 to even 80% of our immune system is in our gut. In other words, those trillions of microbes in your large intestine, along with the ones in your small intestine and stomach, have a huge influence on your immunity to disease.

We are learning that these microorganisms literally influence every aspect of our health and well-being. Besides immune response, our microbiome influence mental health, asthma, obesity, inflammatory diseases (like heart disease and diabetes), cancer, and more.

One recent study looked at dietary fiber in the diets of people with melanoma cancer.¹ The patients were divided into high fiber and low fiber diet groups. The cut off for the high fiber group was 20 grams of fiber, which is less than the recommended daily allowance of

25 grams for women and 38 grams for men. Seventy-one percent of the people in the study didn't even hit 20 grams of fiber daily. The 29% in the high fiber group had a greatly improved rate of survival. For every five grams that daily fiber increased, the survival rate increased by an astounding 30%!

Because of the influence of our gut microbiome on our immune response, it's not surprising to find a connection between our gut microbiome, fiber, and COVID 19. A study was done with hospital workers from six countries, looking at dietary patterns and health outcomes.² The study did not ask exactly what they were eating, but asked them to choose one of the listed categories that they felt described their diets.

Those who said they were eating a whole foods, plant-based, or vegetarian diet were put together in one category. Persons in this category were 73% less likely to have a moderate to severe case of COVID 19! It also appeared this group had less likelihood of getting COVID in the first place, but that part of the study was nonconclusive. This study was done before COVID vaccines were released, so no one was vaccinated. People who fared the worst were those eating low carb and high protein diets. They were 3.8 times more likely to develop moderate to severe COVID.

Next let's talk about genetics. Scientists used to believe that our genetic code was set. You were born with a certain code and that was it. Now, they are discovering that our genetic code is more like a series of switches that can be turned on or off, and it appears that our gut microbiome controls the switches. A healthy microbiome can apparently keep dormant undesirable genetic tendencies toward disease. This is just one more reason we need to be passionately concerned with developing a strong gut microbiome.

Research concludes that when it comes to a healthy microbiome, diversity is the key. There are hundreds to thousands of different varieties of microbes in our bodies. The more different types of good microbes we host, the healthier we are. More diversity equals more health. It is also apparent that the way to have a diverse microbiome is to eat an abundance of fiber.

Many of us think of fiber as a distasteful supplement one takes to promote good bowel movements. As you can see, we are discovering that fiber does so much more for our bodies and that the best fiber is not

consumed as a supplement, but eaten from food. What foods provide this health-giving fiber? Whole grains, nuts, seeds, vegetables, and fruits! Fiber is only found in plants. But there is more: Not all fiber is created equal. The fiber from whole grains may offer specific health benefits that can't be replicated with fiber from fruits or vegetables alone.³ This is undoubtedly one reason God told us grain is the staff of life.

It is good news to discover that our microbiome can be manipulated. You are not stuck with the microbiome with which you are born. Have you heard the story about the two wolves inside us? The old Native American story goes like this: There are two wolves battling inside us. One is good (love, joy, peace) and one is bad (anger, greed, selfishness). Which one will win? The one you feed.

This is also the story of our gut microbiome. The different kinds of microbes in our gut have different “dietary needs.” Good food choices will feed the beneficial kinds of microbes, and they will flourish and increase. Conversely, poor food choices will feed the bad microbes in our digestive system, and they will gain ground in our gut, causing havoc. If we don't give the bad microbes what they need to live, they will die out. Just like the story about the wolves, the microbes we feed will flourish.

Interestingly, it appears that the flourishing, dominant microbes in your gut can cause cravings for more of what they need. Most of us have felt this. When we eliminate junk food from our diet, at first we have cravings for those foods. The bad microbes that thrive on these foods want to be fed! If you don't eat the junk food for a while, the cravings subside as the bad microbes die off.

You can actually change your taste buds over time by beginning to eat small amounts of good foods that you don't currently like. The good foods you don't like can begin to taste delicious to you over time as your gut microbes change. You can start to love and even crave new healthy foods when the good bacteria fed by those good foods begin to rule in your gut.

When a healthy balance of the microbes in the gut is disrupted, it leads to the development of various chronic diseases with an underlying inflammatory condition. The typical American diet—high in sugar and other processed refined carbohydrates, high in meat, and low in fiber—results in dysfunctions and disruptions in our gut microbiome. This in turn contributes to the increase in the development of

chronic inflammatory diseases such as intestinal bowel disease, colorectal cancer, allergies, autoimmune diseases, and obesity with its associated health problems. These diseases can, at least in part, be prevented by adequate dietary fiber.

Are you beginning to see how these new discoveries about our gut microbiome relate to the Word of Wisdom found in Section 86 of the Doctrine and Covenants? In the Word of Wisdom, God clearly tells us the following dietary information: Grains are the staff of life and wheat particularly for man. We are to eat meat sparingly. God has made all wholesome herbs (vegetables) and fruits for our use with prudence and thanksgiving, to be used in season. Not surprisingly, it turns out that this is the perfect recipe for a healthy, diverse gut microbiome!

Diets high in animal protein (meats) have been associated with an increased growth of inflammatory (bad) microbes in our guts, while diets high in whole grain, fruits, and vegetables (including legumes) have been shown to promote the growth and diversity of good microbes in our guts.

“But wait,” you say. “What about carbs and gluten being inflammatory?” Carbohydrates (carbs) have gotten an evil reputation in recent years. People think they need to avoid them to be healthy and to lose weight. Low carb diets are dangerous because they are low fiber diets. As a matter of fact, low carb diets—which are high in animal protein—have consistently been associated with increased growth of bad inflammatory microbes. If you follow the Word of Wisdom, you will not be eating a low carb diet.

It is true that we need to avoid REFINED carbs: sugar, refined grain products, high fructose corn syrup, etc. These are gut disrupting foods. Complex carbohydrates, on the other hand, are the foundation of a healthy diet.

Doctor Will Bulsiewicz, MD, (a board-certified, award-winning gastroenterologist) says in his research-based book *Fiber Fueled*, “If you want a healthy microbiota, whole grains are the foundation of building a healthy gut.” But you don't have to take Dr. Bulsiewicz's word for it. It's what God says in the Word of Wisdom: Grain is the staff of life, and wheat for man. We need to believe this! Whole grains are a healthy complex carbohydrate and an excellent source of prebiotic fiber which feeds the good microbes in our guts. We need to stop being afraid to eat generous amounts of whole grains!

Scientific research backs this up. A meta-analysis combining results from studies conducted in the U.S., the United Kingdom, and Scandinavian countries (which included health information from over 786,000 individuals), found that people who ate 70 grams per day of whole grains—compared with those who ate little or no whole grains—had a 22% lower risk of total mortality, a 23% lower risk of cardiovascular disease mortality, and a 20% lower risk of cancer mortality.⁴

An analysis of six studies including nearly 250,000 people showed that those who were eating the most whole grains had a 14% lower risk of stroke from those who were eating the fewest whole grains.⁵

One study showed a 20% reduction of the risk of colorectal cancer for every three servings of whole grains eaten per day. The risk was reduced even more in those eating more than three servings of whole grains per day.⁶

In a large study of nearly 200,000 U.S. adults, those eating whole grains most frequently had a 29% lower risk of developing type 2 diabetes across the approximately 30-year study period than those who rarely or never eat whole grains, even after adjusting for other lifestyle factors.⁷

Eating three servings of whole grains each day is linked to lower body mass and less belly fat.⁸ (So don't believe that book about a wheat belly.)

Eating whole grains even appears to help our mental health! An analysis of twenty-three studies shows that people who eat more whole grains are more likely to have better mood, less depression, and less anxiety.⁹

Studies consistently show that whole grains are not inflammatory, but in fact are anti-inflammatory and that swapping out refined grains for whole grains greatly improves our overall health, (at least in part by improving our gut microbiome).

What about gluten? If you have celiac disease, by all means, avoid gluten carefully. But if not, gluten is not the villain it has been portrayed to be. If gluten was inflammatory and caused gut issues that should be shown in research studies of the gut—but it is not. Quite the opposite has been found. After healthy subjects spent a month on a gluten-free diet, researchers found lower levels of healthy gut bacteria and higher counts of *E. coli* and other unhealthy gut bacteria.¹⁰ Other studies have confirmed these findings. Eating whole wheat improved intestinal integrity and reduced intestinal permeability (leaky gut).

Research debunks the idea that gluten causes “brain fog” also. In a study of 13,494 women without celiac disease, there was absolutely no relationship between gluten and cognitive function.¹¹

Food intolerances, including gluten intolerance, are a deeper subject than there is room to address in this article, but training your gut microbiome is the basis for healing in this area also.

What does it look like to make grain the staff of life within a plant-based diet? The American Heart Association says we should eat at least six servings of whole grains every day. I think this is a great goal. If we do this, I believe we can say we are using grain as our staff of life. To eat six or more servings, you need to eat whole grains at every meal and for snacks, too.

Six servings of whole grains mixed into a plant-based diet might look like this:

Breakfast—½ cup of cooked oatmeal, with blueberries and walnuts. I like to add flax and chia to my oatmeal as well. (1 serving)

Lunch—An almond butter sandwich on two slices of (homemade) whole wheat bread, plus veggies with hummus. (2 servings)

Snack—A whole wheat homemade muffin, plus an apple. (1 serving)

Dinner—Chili with a small amount of meat and plenty of beans, plus added whole barley, with homemade whole grain cornbread, and a green salad sprinkled with cooked millet. (2 to 2.5 servings)

This is just one menu example. The variations are endless!

Finally, remember the best way to change to a healthier diet is slowly. Increasing fiber in your diet slowly will give your gut microbiome time to adjust. Also be sure you are drinking enough water to help your body use that extra fiber.

I find it exciting to learn more about fiber and our gut microbiome, because it adds a deeper and fuller understanding to why God has given us the principles of the Word of Wisdom and why it is SO important that we apply them to our lives.

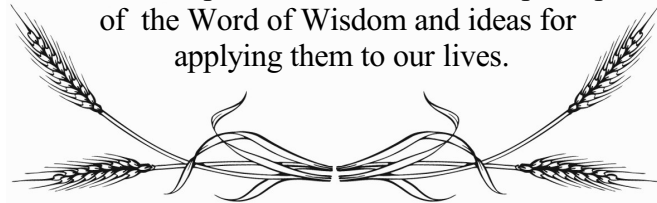
Pray for a deeper understanding of the Word of Wisdom as part of God's Word. Pray over the changes you want to make to your diet. God will help us. He will give us guidance and strength to keep the Word of Wisdom.

For further information and tips on keeping the Word of Wisdom, visit my blog at the following web address: www.RunningWithTheGrain.blogspot.com

You may also view my Word of Wisdom classes at [www.OGRB.org /videos/online video channel](http://www.OGRB.org/videos/online%20video%20channel).

Go to October 6, 2022, Women's Department Class for the presentation on the Word of Wisdom and our gut microbiome, which contains additional information.

Go to February 5, 2022, Oak Grove Word of Wisdom Class for the presentation on the basic principles of the Word of Wisdom and ideas for applying them to our lives.



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You CAN Bake Homemade Whole Wheat Bread!

After you practice on quick breads, sooner or later you are going to get the urge to bake a “real” loaf of whole wheat bread. There are few things as satisfying as a hot loaf of bread fresh out of the oven. Just remember that making whole wheat bread takes practice. Don't be discouraged if your first efforts are less than perfect.

When I first started trying to bake bread, I made “bricks”— heavy, brick-shaped lumps of bread. My husband had to set them on end and cut them lengthwise to get a slice big enough to make a sandwich! Now I know that I was making two common mistakes. I “choked” the dough by adding too much flour, and I was not kneading the dough thoroughly enough.

The best way to learn to make whole wheat bread is to ask someone who has mastered the skill to come into your kitchen to teach you. I will be forever grateful to a generous lady by the name of Julie Stephenson who invited ladies from our church into her kitchen and taught us how to make whole wheat bread. It was the end of my brick loaves (and my husband was greatly relieved)!

However, I know many of you don't have the option of learning in person from a skilled bread maker, so I will walk you through my own bread making process in this article.

The first step to successful whole wheat bread making is to find a good recipe. The recipe I am sharing with you originated from that bread making class taught by Julie, but through the years, I have tweaked and adjusted it to make it my own. It is important to use a recipe designed for 100% whole wheat flour. If you try to adapt a recipe designed for white, refined flour, you are much less likely to end up with a nice loaf.

For beginners, a recipe that makes two or three loaves is a good place to start, especially if you will be kneading the bread by hand. It is easier to knead a smaller amount of dough—and if it doesn't turn out very well, you have only two or three bricks to eat!

Let's take a look at the ingredients to a great loaf of bread:

Whole Wheat Flour

Top quality flour is the foundation for a great loaf of bread. It is important to use flour from a quality, high protein hard wheat. Whether you choose the milder flavored white wheat or traditional red wheat or a mixture of both is a matter of personal taste. I tend to mix white and red wheat in my bread, but have baked bread entirely with one or the other. My first choices for quality wheat are Bronze Chief red wheat and Prairie Gold white wheat, both from Wheat Montana. Although these are not certified organic wheats, they are grown without chemical pesticides and are non-GMO.

The highest quality, most nutritious whole wheat flour will be one you grind in your own kitchen, since the oils in whole wheat flour tend to go rancid quickly. I cannot go into all the reasons here as to why you do not want to go to the grocery store and buy a bag of whole wheat flour. Please read my blog post from May 2015 to learn about the problems with commercial flour. (<http://runningwiththegrain.blogspot.com/2015/>)

If you cannot buy a grain mill at the present time, try to find a friend who has one and would be willing to grind flour for you. A distant third place option is to buy whole wheat flour from a local natural foods store. Choose brands that are reliable such as Wheat Montana or Bob's Red Mill.

Apple Cider Vinegar

This may seem like an odd thing to include in a bread recipe, but after trying it multiple times with and without the vinegar, I recommend using the vinegar. It does result in a nicer loaf. There are various theories about why

this is so, but the most widely accepted theory is that the acidity helps the gluten develop and aids the action of the yeast. Do not think more is better in this case, however, since too much acidity will inhibit the growth of the yeast. Yeast grows best in a slightly acidic environment.

Apple cider vinegar may be a natural dough conditioner that will improve the texture of the bread. It might also have some preservative action that slows down the growth of mold. (Honey may also inhibit mold growth.) You want to add enough vinegar for the benefits, but not so much it will inhibit the yeast or add a flavor to your bread. Use only apple cider vinegar and not distilled white vinegar. Read the label carefully as many “brown” vinegars are actually distilled white vinegar with apple cider vinegar flavoring and color added.

You may also use ascorbic acid powder (Vitamin C) to create this slightly acidic environment for your yeast. (This is why ascorbic acid is a common addition to commercial dough conditioners.) Use only a small amount, perhaps 1/8 to 1/4 teaspoon in a recipe for three loaves. I have tried ascorbic acid in my bread in the past, but in my opinion, apple cider vinegar gives better results and it is cheaper and easier to keep on hand.

Yeast

Yeast adds a wonderful flavor to bread. It is a living organism—a single-celled fungus. The yeast cells feed on simple sugars (in this recipe, honey) in a fermentation process, and give off carbon dioxide. The carbon dioxide is trapped in the network of gluten strands and creates small bubbles that cause the bread to puff up and rise.

If the dough is made from poor quality flour which does not contain enough gluten for bread making, or if the bread has not been kneaded enough to develop the gluten, these bubbles of carbon dioxide will escape instead of being trapped in the dough. The result is a loaf that raises poorly and is flat and dense.

Being a living organism, yeast must be treated carefully. It can lose its potency or even die if not handled and stored properly, or if it just becomes too old. Moisture, air exposure, and heat are the enemies of yeast. Store it in an air tight container in the freezer for best results.

What type of yeast is best? Let’s look at the options:

Active Dry Yeast – This is the common type of yeast found in foil packets in most grocery stores. It should be adequate, but not my first choice for bread making.

Rapid Rise Yeast – This strain of yeast is for recipes like cinnamon rolls that do well with one quick rise, and not recommended for bread making.

Instant Yeast – This yeast is a slightly different strain than active dry yeast, and has been ground into finer granules. The flavor this yeast imparts to the bread is subtly different than active dry yeast. In my opinion, this is the superior yeast for baking whole wheat bread. I use Saf Instant red label yeast. You may need to order it online.

Fresh Yeast or Cake Yeast – This yeast comes in a solid cake instead of powdered form (hence the name). The flavor from cake yeast is said to be more robust, but it is also quite perishable and only lasts in the refrigerator for about a week—which is the reason I have not tried to bake with this type of yeast.

Now let’s look at some ingredients that I do NOT recommend including in your bread:

Vital Wheat Gluten

Vital wheat gluten is made from wheat flour that has been hydrated to activate the gluten and then processed to remove everything but that gluten. It’s then dried and ground back into a powder. I used to add vital wheat gluten to my bread, but I don’t any more. Here’s why: First of all, while I used to lean on vital gluten to make a nicely textured whole wheat loaf, I find with my current recipe, I don’t need it. Secondly, vital wheat gluten is a highly processed food and much of it is imported from Australia, Canada, Europe . . . and China. And finally, I think God made wheat and other foods perfectly in their whole form. I do not think it is a usually good idea to

take one part of a food and concentrate it or eat it in isolation. This is the reason I am not a proponent of eating wheat germ or wheat bran or adding them to foods. I generally like to stick to the whole foods as God created them.

The amount of gluten in whole wheat may be tolerated without trouble by most people, but when extra wheat gluten is added (and there is a generous amount added to almost every loaf of commercial whole wheat bread on the store shelves), you may be asking for gut trouble. Have you ever wondered why store bought whole wheat bread has such a different texture than homemade? It's that added gluten! Don't feel like you have to lean on this crutch to make whole wheat bread at home. You can definitely make a nice loaf of 100% whole wheat bread without added vital wheat gluten.

Commercial or Homemade Dough Conditioner Mixes

The main ingredient in these mixes is vital wheat gluten. Enough said.

Here is my popular "**Norman Bread**" recipe. I make six loaves at a time in my Bosch mixer and large convection oven, but I have cut the recipe in half for you.

Norman Bread (Yield—3 loaves)

Step One -- Softening the Bran

3 cups of very hot water

1/4 cup apple cider vinegar

1/4 cup honey

1/4 cup extra virgin olive oil or melted butter

About 6 cups of fresh milled flour (or as fresh as you can get!)

This short soak will help soften the bran in the whole wheat flour. Bran is sharp and can cut the strands of gluten that are needed for a loaf to rise nicely.

Since we are not dealing with the yeast yet, the temperature of the water in this step is not critical. I just use water as hot as it will come from my faucet. You do not want boiling hot water. Add the water, apple cider vinegar, honey, and oil in the bowl of your mixer, or in a large bowl if you are making bread by hand.

Do not use Crisco (or any similar product) or margarine in bread making. It causes the bread to be crumbly, and is made from unhealthful hydrogenated oils besides. Butter may be used in bread making. You may add it during step one in melted form, or soften it by letting it set at room temperature, then add it during the next step.

Do not use sugar in whole wheat bread making. It, too, will cause a crumbly loaf and is not a healthy choice.

Add the flour and mix until you have a thick batter consistency. You may need a bit more (or perhaps less) than 6 cups of flour. The consistency of this first mix is not critical either, so don't sweat over it. Aim for a consistency that is about like muffin batter. Make sure all the flour is mixed in and wet.

Let this mix set for 20-30 minutes. More is time is okay, too.

Some people prefer to use milk as the liquid in their bread instead of water. Replacing all or part of the water with milk will result in a sweeter bread. Milk will also add additional protein to your bread. Be aware that dough made with milk will brown more readily than one made with water. Milk should be heated to 180 degrees (scalded) and then cooled to luke warm before adding it to the dough. This denatures the whey protein in the milk that can otherwise interfere with gluten development and rising of the bread. Quite honestly, the reason I use water is simply because it is quicker and easier than heating and then cooling milk.

Step Two -- Additional Ingredients

2-3 eggs

1 Tablespoon instant yeast

Optional 1 cup of warm water (110-115 degrees) with a drizzle of honey

(If you do not proof the yeast, add this extra cup of water in step one.)

2 1/4 teaspoons salt

I use 5 eggs to make 6 loaves of bread. To begin with, if your eggs are smaller, I would use 3 eggs for three loaves. If they are extra large, I would use 2 eggs when making this three-loaf recipe. The next few times you bake, experiment and see if you like your bread with more or less eggs added to decided if you want to use the extra egg or not.

The newer active dry yeasts and instant yeasts do not need to be proofed (soaked in warm water with a bit of honey). They can be added directly to your other dry ingredients and mixed into the dough. However, proofing yeast only takes a few minutes and that way you know the yeast is strong and active before you add it to your bread.

Yeast is quite fussy about temperatures, so use a thermometer to check your water temperature if proofing your yeast. With enough experience, you will be able to tell by feel if the water temperature is correct, but checking with a thermometer is always the safest way, especially when you are new to bread baking. If the water is too hot, the yeast will be killed; if it's too cold, the yeast will not grow well. Either way your bread won't rise properly. Your water must be between 110-115 degrees.

Pour the 1 cup of warm water into a small bowl and add a drizzle of honey. I suggest beginning with water a bit hotter than 110-115 degrees, since as you pour it into the bowl, it will cool some. Check the temperature of the water in the bowl after adding the honey and before adding the yeast.

Sprinkle the 1 Tablespoon of instant yeast over the top of the water. Then use a fork or spoon to gently stir the yeast into the water until all of it is wet. Let it stand for about 5 minutes. It should puff up and become foamy. If it does not, your yeast is not good. Don't use it!

While your yeast is proofing, add the eggs to your batter mix. If you are making bread by hand, you may wish to beat the eggs in a separate bowl before adding them. If using a stand mixer, you can just add them and let the mixer do the work. Pour in the bowl of proofed yeast and water. Add the salt. Mix everything together thoroughly.

Don't try to leave out the salt. It is necessary to control the growth of the yeast.

If you do not have a stand mixer and plan to knead your dough by hand, I suggest beating the batter with an electric hand mixer for four or five minutes before proceeding to the next step and add the rest of the flour.

Step Three -- Add Addition Flour

You will probably add between 1 1/2 to 4 cups of flour, but this is a tricky step! There is no way to say exactly how much flour should be added, as it will vary each time with factors such as the protein content and age of the flour and the humidity in the air.

It requires some practice to get a feel for what consistency the dough should be when enough flour is added. You want the dough to have body and substance, but you must leave it soft and slightly sticky. The consistency of the dough is going to improve during the kneading, also.

Here's my tip: Add small amounts of flour at a time and error on the side of adding too little flour at this point. You can always add more flour later, if needed. Remember that too much flour will result in a dense heavy loaf that does not rise well. If you are using a stand mixer, leave the dough soft and sticky at this step and bring it to the final consistency after kneading. If you are going to knead by hand, add just enough flour to give the dough enough body to handle it for kneading.

(Oops! If you think you have added too much flour and your dough feels heavy and stiff, you may be able to redeem your bread by adding a bit of water to lighten up the dough consistency.)

Mix the additional flour in well. After mixing, you can let the dough "rest" for twenty minutes before you knead it. This step is optional, but helps develop the gluten and make a finer textured bread. (I do not usually take this extra step, but you may wish to do so, especially when you are first learning to bake bread.)

Step Four -- Knead the Dough

Whole wheat dough requires a LOT of kneading. Enough kneading is important to develop the gluten in the flour so it will stretch and not tear when the bread rises. (I have chosen to buy a Bosch machine to knead the dough thoroughly for me, but I have learned to make nice bread by hand.)

Final check of the dough.

Knead the dough at least 15 minutes by hand. If using a machine, knead the dough for 8-10 minutes and no longer. It is virtually impossible to over-knead the dough by hand, but it is possible by machine. When you are done, the dough should feel elastic, springy and smooth.

When I am kneading the dough in my Bosch machine, I start the kneading with the dough on the soft side. When the kneading is done, I check the feel of the dough and mix in a bit more flour as required to bring the dough to the proper consistency. (And that's six loaves worth of dough in my Bosch mixer in that photo. Your mixer won't be that full!)

If you are kneading the dough by hand, dump the dough out on an oiled surface. Use oil on your hands and on your kneading surface to prevent sticking—not flour! I use extra virgin olive oil for this step, also. Often during the kneading is when too much flour gets added.

Step Five -- Let the Dough Rise

If you are letting the dough rise on your work surface, be sure to cover it with a (barely) damp towel for this rising. I let the dough rise right in my Bosch mixer bowl, covered loosely with the lid and/or a damp towel. Weighing out the loaves

Some people skip this rising and go directly to shaping the loaves. You can experiment and try both ways. I feel like letting the dough rise at this point results in a better texture of bread. The length of time you allow the dough to rise at this point can vary quite a bit without harm. I probably allow my dough to rise for anywhere from 20 to 45 minutes. If the air temperature is cooler, the dough will rise more slowly.

Step Six -- Divide the Dough and Shape the Loaves

At this point, I remove the dough from my Bosch mixer and put it on the work surface. For me, this is my kitchen table. As mentioned above, use oil on your hands and work surface, not flour!

I use a kitchen scale to weigh the dough so I get uniform loaves. This is not necessary, but it's nice! I use about 1.5 pounds of dough for each loaf, sometimes slightly more. If you don't have a scale, it's fine to just "eyeball" dividing the dough into three parts. Now you are ready to shape your loaves.

Let's take a moment at this point to discuss bread pans. The size of your bread pans is important. A pan that is too wide will result in a flatter low loaf which is not as nicely shaped. A good size for bread pans is 8-1/2 x 4-1/2 x 2-1/2 inches.

Does the material the loaf pan is made from matter? You bet it does! Choose steel pans for baking bread. Glass is an insulator and slows the flow of heat from the oven air into the bread dough. I have not tried silicone bread pans. If you have, tell me about your experience with them in the comment section after this article!

I recommend avoiding non-stick coatings. They are convenient, but may leach harmful chemicals into your food. I spray my pans with extra virgin olive oil to avoid sticking. This also helps to build up a patina on your baking pans. A patina is when through the repeated heat of baking, the oil on the pan begins to polymerize and form a film that is like a natural non-stick coating. You want this! Don't scrub it off!

In fact, I recommend that you never wash your bread pans at all (except for washing new pans after you bring them home from the store). I wipe my pans out with a paper towel and a bit of olive oil when needed, but most of the time, I just put them away for next time without any wiping or washing. Never put your bread pans in the dishwasher.

Now let's get back to the business of shaping those loaves! Take one loaf's worth of dough and pat it down with your (oiled) hands to flatten it somewhat.

Next take an oiled wooden rolling pin and gently roll the dough into a long rectangular shape. Don't apply too much pressure to the dough or it will begin to tear instead of stretch.

If the dough seems tight and does not want to stay stretched out, you can "spank" the dough by slapping it with the flat of your hand or by throwing it down on the table. This can be rather fun if you have had a frustrating day! Or you can just let the dough rest for a few minutes to help the gluten relax.

Fold the long rectangle of dough into thirds by folding each end toward the middle, again making a rectangle, but with the length going the opposite direction. The photos will make this easier to understand.

Now use the rolling pin to roll the dough up and down across the folded rectangle of dough. The idea is to work out any large air bubbles.

Use your hands to roll up the rectangle. Start at the end closest to you. Turn in the corners a little bit as you begin. Try to keep the roll tight. Use your fingers to tuck in the ends as you go.

Turn the completed roll over and pinch along the edge of the dough to seal it to the roll. Pat down the area you have pinched.

Pinch both ends of the roll together also and gently tuck them in and work them into a rounded shape. (I cup my hands around the ends to do this.)

Put your hands along each side of the formed loaf and pick it up by the middle to place it in the pan. Repeat this process with the other two loaves.

Step Seven -- Final Rising

Cover the loaves with a damp dish towel and let them rise.

Turn the oven on at this point to preheat to 400 degrees. (You are not going to bake the loaves that hot, but they benefit from putting them into a hotter oven.)

Most recipes say to let the loaves rise until they are doubled in volume, but I do not let mine rise quite this long. If you gently poke a finger into the end of the loaf and the indentation stays (instead of quickly filling back in), then the loaves are ready to bake.

Step Eight -- Bake Those Loaves!

Open the oven door (watch out for that blast of super hot air) and put your loaves in. Space them out on the oven rack so air can circulate around them. After you shut the door, set your oven for 350 degrees. It should already be this hot, even with the loss of heat from opening the door. (This is why you preheat to 400 degrees.) Set the timer for 15 minutes.

I feel that the best results in baking bread comes from starting the loaves out at 350 degrees for 15 minutes and then finishing with 25-35 minutes at 300 degrees. When your 15 minute timer goes off, do not open the oven door, but simply reset the oven temperature for 300 and your timer for 25 minutes.

When this timer goes off, check the loaves for doneness. It's fine to take them out of the oven (and out of the pan) to check them and put them back in the oven if more baking is needed. You want them to be nicely browned and to sound hollow when tapped on the bottom with your finger. Your oven will bake a bit differently than mine, so I can't tell you exactly how long your loaves will need to bake. (I use a convection oven and bake six loaves at a time.)

Take a moment to enjoy the amazing aroma of baking bread that is filling your house!

Step Nine -- Eat Some Hot Fresh Bread!

Remove your loaves from the pans (with hot pads!) and let them cool on wire racks. Don't skip cutting a slice or two while the bread is warm out of the oven and eating it with butter and honey! This is truly one of the best eating experiences of life!

Once your loaves are cooled, store them in airtight bags or containers. Freeze what you will not use in 4-7 days. Go with the shorter number of days in humid summer weather. Your bread should last longer without molding in cooler, dry winter weather. Putting bread in the refrigerator dries it out. I keep my bread on the counter or in the freezer.

Remember what I said in the beginning of this article: Baking whole wheat bread takes practice. Don't be discouraged if your first efforts less than perfect. Keep practicing and ask questions from experienced bread bakers.

Let me know how your baking goes!