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GOD'S EXTRAVAGANT GOODNESS

O taste and see that the LORD is good. Psalm 34:8

God's goodness overflows our lives through the five senses He has graciously given us—sight, hearing, smell, taste, and touch. In the last issue of the **CREATOR Journal**, we briefly mentioned the tongue—the remarkable muscular organ of talk and taste, speech and spice. Please join us as we explore this special gift and discover what it means to “taste and see that the LORD is good.”

THE MUSIC OF TASTE

Our tongues were designed by our Lord Jesus to detect a variety of chemicals found in food that produce the five basic taste sensations of *sweet, salty, sour, bitter, and savory*. Taste buds contain special cells that can “hear” or discern the “musical notes” of food. These tastes must first be amplified before passing them along to the brain. Exactly how these five sensations work together is extremely complex and quite mysterious. We may not fully realize it, but our taste buds daily cry out, “Only our all-wise God could have made us!”

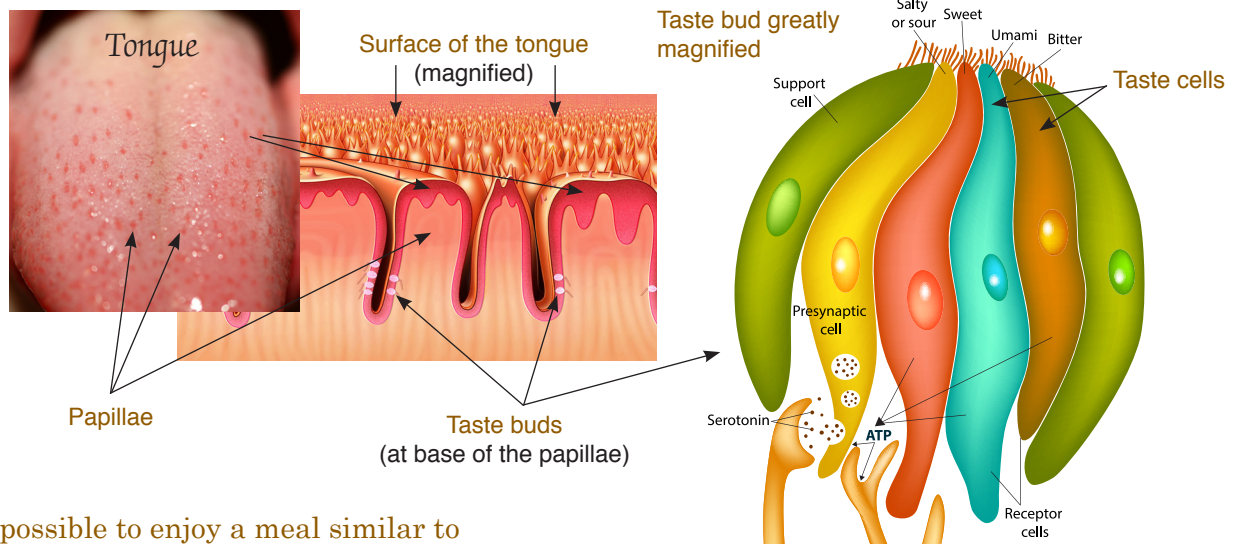
The bumps on our tongues are not taste buds, contrary to common belief. They are *papillae* (pah - PIL - lee). Taste buds, which are too small to see without a microscope, surround the bases of the papillae. Each taste bud possesses between 50 and 150 special taste cells that detect different chemicals in food (see page 2).

Taste buds vary in number from person to person and change with age. An adult typically has 2,000 to 10,000 taste buds. Newborn babies and young children may possess three times as many, which explains why babies prefer “bland” food and why children don’t enjoy strong-tasting things like Brussels sprouts.¹ (Have sympathy for your children if they don’t like eating certain vegetables—they may be just too bitter for them!)



Christ's wonderful creation!

¹ What is “bland” to an adult may be quite tasty to a baby.



It is possible to enjoy a meal similar to the way we savor music, and by our eating, glorify God (1 Corinthians 10:31). Some meals may be quite delicious, while others, not so much. And as with music, what we like to eat may differ greatly from someone else's food preferences. Much depends upon our family upbringing and culture.



Music and food often go together

Our tongues work *in concert* with the nose to recognize the quantity and quality of chemical tastes dissolved in our mouths and suspended in the air moving through our nostrils.² An orchestra is composed of string and brass sections; so too, the *music of flavor* depends on both taste and smell. (Consider what food tastes like when you have a bad head cold and cannot smell anything.)

² See **CREATOR Journal** Volume 16 Numbers 1 & 2.

TASTE VS. FLAVOR

Is there a difference between “taste” and “flavor?” It all depends on who you talk to. Some chefs will use these terms interchangeably; others make a distinction. For our purposes, we will limit taste to the five sensations of sweet, salty, sour, bitter, and savory. Flavor is probably best thought



of as taste + smell. The flavor of a delicious meal depends on both the tongue and the nose “dining together.” Some estimate that 80 percent of a food's flavor comes from its smell. This may be why we prefer hot over cold dishes since the warmer the food, the richer its scent.³

³ Hot food gives off more scented water vapor than cold food.

“100,000 FLAVORS”

Back in 1953, a start-up company came up with the catchy slogan “31 Flavors.” Five years earlier, Burt Baskin and Irv Robbins had merged their two ice cream shops to form the now internationally-known Baskin-Robbins.

Thirty-one varieties of anything is a lot, but the number of different meals created in kitchens the world over far exceeds this. Our mouths can detect the temperature and texture of food, adding to the flavor experience. And for centuries, countries in warmer climates have included spices in their foods to prevent spoiling—resulting in zesty dishes. All told, Jesus has gifted people with the ability to distinguish up to 100,000 flavors. Multicultural cuisine thus represents a savory way to exalt God’s incomparable goodness!⁴ This *divinely designed extravagance* points us back to God’s infinite generosity while revealing His Son’s excellencies.

Flavor is a very subjective or personal thing. The taste preferences between people and species of animals are very great. (Consider what dogs enjoy eating!) Like music, there are—believe it or not—many people in the world who love stinky cheeses. Others find them just “too loud” or “discordant” for their own taste.

THE FIVE BASIC TASTES

Sweet: Jesus placed into the pantry of nature many common sugars, which are a main source of energy for our bodies:

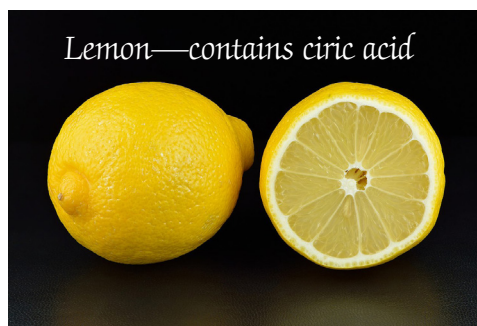
- sucrose (sugar cane and beets)
- fructose (fruits)
- glucose (honey)
- lactose (milk)
- maltose (barley)

⁴ We find this truth embedded in Paul’s teaching on why God established nations and national identities (Acts 17:26-27).

Scientists do not yet understand how taste buds detect sweet things—this fact further magnifies the genius of Christ’s design of them!

Salty: Just about all living things need salt in small amounts to survive. That’s why our Lord Jesus gifted virtually all creatures with the ability to taste it and seek it out. Common table salt is composed of two elements—sodium and chloride (NaCl). It is sodium in the form of dissolved ions (Na⁺) that the cells of taste buds detect. Our tongues are also able to taste potassium salts, but these are much less common in food.

Sour: When we taste something sour, like a lemon, what we are tasting is acid—ions of hydrogen (another element). Increased levels of hydrogen ions are what make chemicals acidic.⁵ There are a number of organic acids used to enhance flavor, especially those found in salad dressings. These include acetic acid (vinegar), citric acid (citrus fruit), ascorbic



acid (Vitamin C), malic acid (found in apples), and lactic acid (dairy products). It’s interesting to note that many people like sour foods but animals generally avoid them.

Bitter: Most naturally occurring bitter things *are not safe to eat* (as we will soon see), but there are several bitter-tasting vegetables enjoyed to a greater or lesser degree. These include broccoli, Brussels sprouts, cabbage, cauliflower, bok choy, kale, radishes, collard greens, mustard, and horseradish.

⁵ An increase in hydrogen ion concentration is represented by a decrease in pH—see **CREATOR Journal** Volume 23 Number 3.

Savory: Certain amino acids found in protein trigger the tongue’s sensation of savory (known as *umami* in Japan).⁶ This is especially true of the amino acid glutamate found in the food additive MSG (monosodium glutamate). Savory foods include meat, fish, shellfish, cheeses, tomatoes, mushrooms, and soy sauce.

BITTER WARNINGS

Almost all natural vegetation contains *poisonous compounds*, which are usually *bitter-tasting*. Therefore, it is not safe or wise to eat wild plants with which you are unfamiliar. Creator Jesus fashioned the tongue to detect bitterness to protect both people and animals from accidental poisoning.

In the goodness of God, Christ endowed us with the ability to distinguish between 25 and 35 “bitter notes.”⁷ This special gift allows us to detect harmful chemicals in food. Among other things, our taste buds have been designed to “stand guard”—to be the “gatekeepers” or “cupbearers” of our bodies.

Bitter substances, like deadly strychnine, clearly communicate the wrath of our Lord.⁸



One Hebrew word for wrath is **המח / chemah** (pronounced hi - MAH) and when translated means “heat, rage, furious, poison, bitter.” Because of sin, God’s wrath resides upon all

mankind (Romans 1:18). To ignore the bitter taste of plants is like ignoring the wrath of our Creator. It is therefore good for us to learn about the bitter-tasting plants we must avoid.⁹ “The fear of the LORD is the beginning of wisdom” (Proverbs 9:10).

FOOD MEMORIES

“O taste and see that the LORD is good.” It turns out that our wonderfully kind Creator strongly links the tongue and nose to portions of our brain that store memories and create emotions. Do you have a favorite meal or



dessert from your childhood that brings back pleasant feelings? Some of our most vivid recollections, however, don’t necessarily involve positive experiences. After 60 years, I can still recall the slightly metallic and bitter taste of canned spinach (which was also disgustingly slimy).

On the other hand, I continue to love canned kippered herring, something my brother and I ate regularly as kids. Unfortunately, most people find its fishy aroma rather repulsive, so I frequently find myself eating kippered herring alone.

6 Savory or umami taste buds were first recognized by the Japanese chemist Kikunae Ikeda in 1908.

7 Animals that eat only meat (carnivores) cannot distinguish nearly as many bitter tastes as, say, cows (herbivores).

8 Strychnine is found in 300 different tropical trees around the world.

9 There are bitter vegetables that are not poisonous and can enhance a meal if used properly.

ANIMAL TASTES

Mammals have taste buds very much like our own, though their numbers vary widely. Plant eaters have far more than carnivores (like cats and dogs). Cows may possess as many as 25,000 taste buds on their



tongues; domestic cats have as few as 500. Why the difference? Animals that regularly eat vegetation must be able to detect the bitter poisons often found in plants.¹⁰

The general taste of food is similar for dogs, cats, and people, except that a cat's taste buds *cannot detect sweet*. Considering some of the things that dogs and cats enjoy eating though, we must wonder how similar our taste preferences really are!

Whales and dolphins (Cetaceans) are "taste deaf." They have no taste buds and, thus, no sense of taste. Kind of sad . . . but all the more reason for us to thank our Creator for the goodness of this special sensory gift. He was under no obligation to give it to us.

Birds generally have very few taste buds (chickens possess only 30). This may explain why vultures dine on such disgusting things as the carcasses of dead animals. On the other hand, our dear Lord's kindness toward us is displayed through such creatures because they clean up the effects of our sin (death).

Fish are blessed with an acute sense of taste. Like dogs, fish can taste the same things we do. But unlike us, Christ covers *the entire body* of a fish with taste buds. The channel catfish, for instance, possesses 700,000 taste receptors, the most of any



animal. It has thus earned the nickname "the swimming tongue." Many species of catfish have an enormous number of taste buds. (Some large catfish may have up to a million!) This, again, reveals God's kindness since He is the One who created them to dwell as bottom feeders. They must be able to easily distinguish between food and potentially harmful things in murky water.

The **octopus** uses its eight arms to taste its environment, having what is called a "touch-taste" sense. Jesus put numerous suckers on each tentacle, each sucker containing several taste buds. An octopus simply needs to touch its food to taste it.

Insects can taste things with their legs as well, though they don't possess taste buds as such. The antennae and wings of insects also detect chemicals in their surroundings.

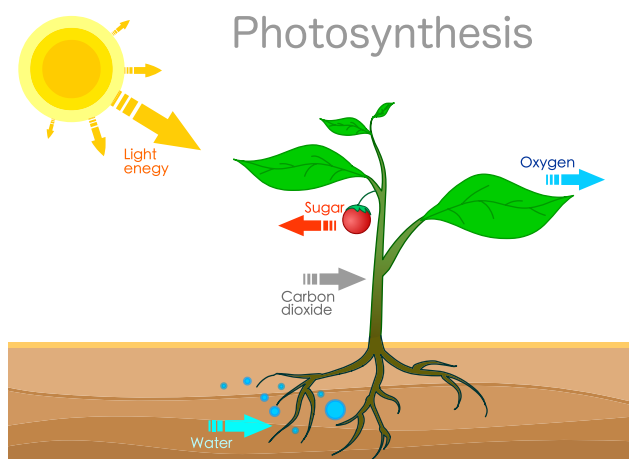
THE SWEETNESS OF CHRIST

Have you tasted the sweetness of Christ Jesus? *He is sweet*, you know! As we mentioned, sweet things in nature (sugars) are a source of energy. So too—for those of us who know the Lord—He is the *strength* of our lives. Apart from Him, we can do nothing of eternal importance (John 15:5).

¹⁰ Cowbane (*Oxypolis* sp.) is one of the deadliest plants in North America. Despite a cow's many taste buds, it is unable to detect cowbane's bitter taste. Why did God make it? It loudly communicates, "*God is to be feared!*"

Our Lord Jesus creates the five tastes of sweet, salty, sour, bitter, and savory using only the things He placed here on Earth . . . with one exception. Salt is found naturally as a mineral in the ground. Plants produce both bitter and sour tastes, and savory comes from animals. Sweet tastes, however, *come mainly from heaven*—they are produced by starlight!

In a most miraculous way, God takes sunshine and converts it into sugar through *photosynthesis*. Green plants are “factories”



that can transform the terrible burning energy of the Sun into something sweet. All the cells of our bodies need sugar. Without the creative miracle of photosynthesis, we would not be able to think because our brains live primarily off glucose and mankind would cease to exist.

The next time you enjoy a sweet treat, please allow it to raise your heart to worship Creator Jesus (1 Corinthians 10:31). Christ our Lord ignites sunlight in the 25 million-degree fiery furnace of the Sun. Then using fragile green plants, He transforms it into the sugar most of us enjoy. He truly is *our Sweet God!*

THE HISTORY OF SPICES

by Philip Huber

But thanks be to God, who always leads us in triumph in Christ, and manifests through us the sweet aroma of the knowledge of Him in every place.

2 Corinthians 2:14

Have you ever stopped to consider the extravagance of our Creator in providing us with so many spices? For millennia, mankind has valued herbs, spices, and sweet-smelling resins¹¹ because of their ability to enhance flavor, preserve foods, treat medical conditions, and enliven our homes with delightful aromas (see John 12:3).

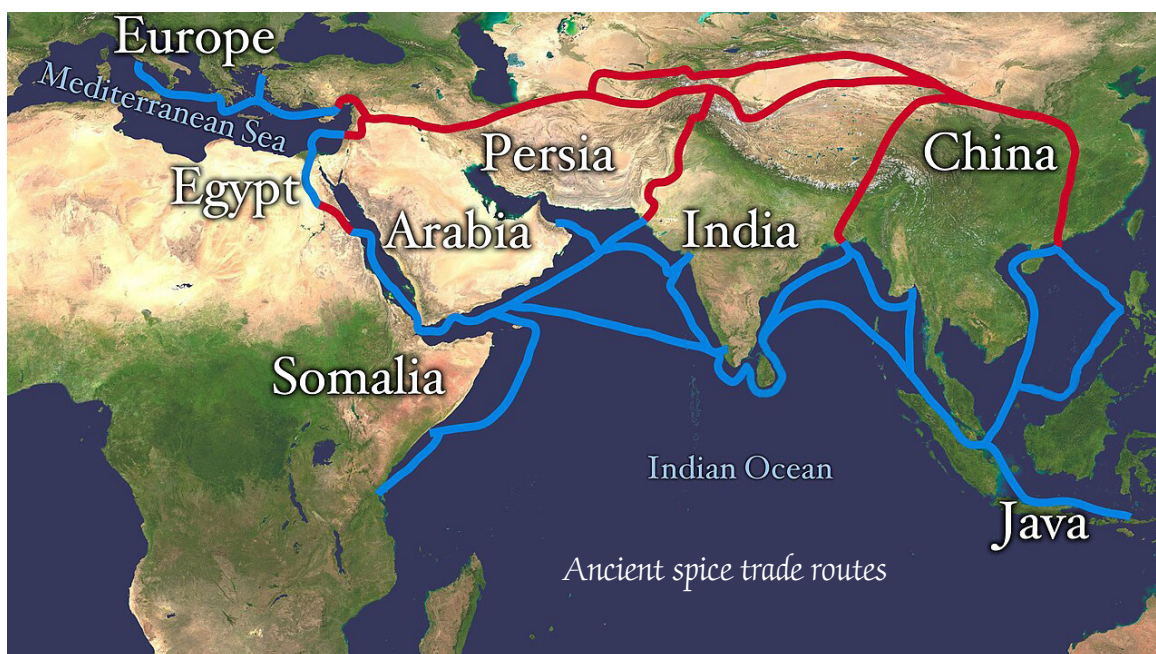
While salt is a mineral found in the ground, most spices come from either whole or ground seeds. They're also derived from dried bark, fruits, and even the stigmas of flowers; herbs come from the leaves of plants.

GOD'S PROVIDENCE IN THE SPICE AND INCENSE TRADE

Many herbs, spices, and resins mentioned in the Bible are native to Israel, but others came from distant places like India, Arabia, East Africa, Java, and China. According to His sovereign will and purpose, God placed each plant in each region of the world for merchants to discover at His appointed time. The Lord also worked through the trade of these merchants to prepare a path for the advancement of the fragrance of the knowledge of Christ and His Gospel. Surely “The mind of man plans his way, but the Lord directs his steps” (Proverbs 16:9). The profitable incense and spice trade led to caravan routes being developed throughout the region of the Middle East by as early as 2000 B.C.



¹¹ Resin is a thick, sticky fluid produced by the bark of pine, fir, and cedar.



MEDITERRANEAN HERBS AND SPICES IN THE PENTATEUCH

The Old Testament law makes mention of coriander, hyssop, and the alliums—garlic, onion, and leek. Moses compared the manna that fell from heaven to the seeds of white coriander, a spice native to the Mediterranean (Exodus 16:31). As a plant of the parsley family, chefs use coriander’s dried fruits and seeds to flavor food, and its leaves are popular



Cilantro

as the herb cilantro.¹² The Bible records that the Jews in exodus pined after the alliums (garlic, onions, and leeks) of Egypt (Numbers 11:5), which grow underground as bulbs.

¹² *Coriandrum sativum*

The Levites were commanded by God to season their grain offerings with salt as a sweet aroma to the Lord (Leviticus 2:12-13). Salt was a precious mineral with preservative qualities and came to represent the special covenant relationship God had with His people (2 Chronicles 13:5).¹³

STABILITY, SPICES, AND SOLOMON’S TEMPLE

In contrast to Israel’s instability during the time of the Judges, Saul, and David, Solomon’s reign saw peace, security, and extensive trade. This subsequently allowed for the construction of the Temple. Aided by Phoenician merchants, Israel developed trade routes with Sheba and Ophir in Arabia, and India. A reference to the aromatic herb spikenard (nard) in the Song of Solomon indicates contacts reaching as far away as the Himalayas, which explains its great expense (John 12:3; see page 9).

A little closer to home, the Song of Solomon mentions the use of saffron (4:14), which originated in Cilicia in what is now

¹³ Known as the “covenant of salt”



southeastern Turkey. Saffron is a costly spice derived from the center portions of the crocus flower.¹⁴ Collecting these is time-consuming and labor-intensive, making it beyond the reach of most kitchens.¹⁵

The Hebrews customarily grew herbs and spices in their gardens, which observant Jews would tithe in accordance with Leviticus 27:30. You may recall that our Lord Jesus Christ mentioned several herbs and spices, including cumin, mint, dill, and mustard (Matthew 13:31)

Mustard seeds have been used to make spices and condiments since the time of the ancient Sumerians (2300 B.C.). The mustard seed referred to in the Gospels was probably black mustard.¹⁶ Black mustard seeds have a stronger flavor than those of brown mustard, which most modern mustards contain.¹⁷

THE HOLY ANOINTING OIL

In the Bible, spices receive their greatest prominence in the Old Testament as ingredients for the holy anointing oil and fragrant incense that the Levites used in the Tabernacle and Temple (Exodus 25:6). This sacred anointing oil was later used to consecrate Israel's kings (Psalm 89:20).

The ingredients for the holy anointing oil included “quality spices” from the East, such as cinnamon, cassia, and sweet-smelling cane or calamus, in addition to liquid myrrh and olive oil.

Cinnamon and cassia come from the dried bark of oriental trees.¹⁸ Both are found in the East, with botanists identifying cinnamon as native to Sri Lanka and cassia originating in China. The two are notably different in that the bark of the cassia tree is thicker and produces a stronger flavor than that of cinnamon. In addition to fragrant oils, cinnamon was used in perfumes (Proverbs 7:17) and probably in the spiced wine referred to in the Song of Solomon (8:2).

The Song of Solomon also mentions calamus or sweet flag (4:14), a marsh herb.¹⁹ The peeled rhizome (RYE - zome) of calamus



is what produces an aromatic oil. Rhizomes are underground structures distinct from roots in that they sprout buds and nodes of their own. Calamus, likewise, originated in the East, growing from India to Indonesia.

THE ANOINTED ONE

As the King of Kings and Lord of Lords, Jesus received the royal gifts of gold, frankincense, and myrrh from the Magi at His birth. Myrrh is an aromatic gum resin extracted from trees native to East Africa and South Arabia. It was an expensive perfume used in rituals and burial. Christ came to die and the gift of myrrh—frequently used in embalming—foreshadowed His death, burial, and resurrection. After Joseph of Arimathea received permission to bury Jesus, Nicodemus took myrrh and aloes and wrapped His body

¹⁴ *Crocus sativus*

¹⁵ One pound of saffron can cost upward of \$5,000 (2023 prices).

¹⁶ *Brassica nigra*

¹⁷ *Brassica juncea*

¹⁸ *Cinnamomum zeylanicum* and *Cinnamomum cassia*
¹⁹ *Acorus calamus*



Myrrh is the dried resin of a myrrh tree (*Commiphora myrrha*).

in linen (John 19:38-40). Prior to our Lord's death on the Cross, Mary anointed our King with costly spikenard (nard) at Bethany.

MARY ANNOINTING JESUS

Mary then took a pound of very costly perfume of pure nard, and anointed the feet of Jesus and wiped His feet with her hair; and the house was filled with the fragrance of the perfume (John 12:3). After 50 years, the Apostle John vividly remembers the precious scent of the perfume Mary used to anoint Jesus' feet just before His sacrifice. Oh, that we would all be like John and use the gift of smell and memory in our everyday lives to herald the aroma of Christ's glory!

As the Messiah or Anointed One, Jesus is now our Prophet, Priest, and King. And with Christ as our High Priest, Believers can approach the throne of grace with confidence (Hebrews 4:16). Prior to the advent of our Lord, the High Priest was obligated to offer incense every morning and night. The other priests kept the incense constantly burning just outside the veil to the Holy of Holies, representing the prayers of God's people (Revelations 5:8).

DIFFUSING THE FRAGRANCE OF CHRIST

Christ's perfect sacrifice became a fragrant aroma to God (Ephesians 5:2), and through Him, we can please God by living obediently. Indeed, the Apostle Paul counted all things as loss that he might gain the knowledge of Christ and the righteousness that comes through Him by faith (Habakkuk 2:4).

By participating in the sufferings of Christ, our lives are seasoned with salt. Through Him, and Him alone, our offerings can likewise be "a fragrant aroma, an acceptable sacrifice, well-pleasing to God" (Philippians 4:18).

When the outpouring of the Holy Spirit came at Pentecost, Jews from what is now Iran, Iraq, Turkey, Egypt, Libya, Rome,

Spikenard



Crete, and Arabia miraculously heard the Gospel in their own language.²⁰ In God's sweet providence, the spice and incense routes by land and sea became avenues for the advancement of the Gospel and Christ's Kingdom!²¹ Praise God . . .

who works all things after the counsel of His will.
Ephesians 1:11

²⁰ Most of these Jews used spice routes in traveling to Jerusalem.

²¹ As such, Apostles like Philip, Matthew, Bartholomew, Thaddeus, and Thomas took the Gospel to Ethiopia, Iran, Arabia, and India.

THE BREAD OF LIFE

Jesus said to them, “I am the bread of life; he who comes to Me will not hunger, and he who believes in Me will never thirst.” John 6:35

In light of all that we have learned here, it must be said that food alone does not satisfy. The sense of taste is not an end in itself. *God alone is our exceeding joy* (Psalm 43:4). Our senses can help us relish Him. Yet, the best meal we have ever had is a mere morsel compared to the coming Supper of the Lamb (Revelation 19:7-9). In Paradise, Jesus will forever feed us with the delights of His character. To be sure, we can have a taste of Him here on Earth, and enjoying a nice meal is not wrong as long as we savor Jesus in our hearts (1 Corinthians 10:31). We believe that God fashioned 100,000 flavors—and the means of experiencing them—precisely to point us to the infinitely greater satisfaction found in Christ alone!

*Blessed assurance, Jesus is mine!
Oh, what a foretaste of glory divine!*²²

Our Heavenly Father desires that we hunger and thirst for righteousness—that we might have an intense longing to know the excellencies of Christ (Psalm 42:1-2; Matthew 5:6). Creation yearns to experience the glory of its Creator as well (Romans 8:19-22). But do you? Has God made you aware of your sin, which naturally numbs your taste for His glory? If so, please turn from sin and believe in Christ who alone can rescue you from God’s coming wrath (1 Thessalonians 1:10). Jesus died on the Cross to absorb the anger of the Almighty for the sins of the ungodly. If you believe this, you will be saved (Acts 16:31).

We live in a world of strife and bitterness and, sadly, a place of increasing hatred for Christ. God’s Word does not hesitate to compare the bitterness of earthly rebellion to deadly poison. If we focus on this, however,

we are sure to become discouraged. Let us, instead, take hold of Jesus and keep our eyes on the sweetness of His glory . . . the taste of Christ will greatly overpower the rest.

Alexander Moody Stuart, in his beautiful book, *The Three Marys*, writes, “Life itself is not needed. I need and you need Christ, but neither you nor I need life.” Pastor Stuart confidently and rightly asserts that Jesus is *the only true life there is!* Surely the glory of Christ can transform our bitterest circumstances into something wonderful for eternity. His glory is the solution to all our problems. So let us find our satisfaction in the taste of Him alone.

“Blessed are those who hunger and thirst for righteousness, for they shall be satisfied.” Matthew 5:6

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²² *Blessed Assurance*—lyrics by Fanny Crosby, music by Phoebe Knapp