

# The Biblical Calendar Demystified

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## Why the Biblical Calendar?

THE SCRIPTURES TELL US THAT YHVH ELOHIM (THE LORD GOD) is not the author of confusion (1 Cor 14:33), and that in the beginning of his creation, he established order out of chaos. He spoke, and light pierced the darkness, the waters above separated from those below, the dry land emerged, and plant and animal life came into existence. As part of this established order, Elohim created time with the sun, moon and earth acting as a unified celestial mechanism or timepiece to keep track of hours, days, months and years.

Why did man need the constraints and order of time as determined by a heavenly clock? There could be many answers to this question, but Genesis 1:14 gives us the answer that YHVH considered most important.

Then Elohim said, "Let there be lights [i.e., the sun and moon] in the firmament of the heavens to divide the day from the night; and let them be for signs and seasons, and for days and years [visible] signs for appointed times [festivals]..."

Here Elohim declares that the reason he created the sun and moon as astronomical timepieces was so that men would know when to keep his festivals. What are these festivals? There are seven and Leviticus 23 lists them all chronologically. We will learn more about this as we go on and how this relates to the biblical calendar.

Why are YHVH's feasts so important? Simply this. He commands his people to observe them forever, including on into the Millennium.<sup>1</sup> Furthermore, they are divine appointments or times when he promises to meet with his people. Finally, the seven feasts represent the seven steps in YHVH's plan of redemption for mankind, and they teach his entire plan of salvation! To observe these festivals by walking them out each year is to learn about this plan of salvation, which includes discovering the deeper spiritual mysteries behind the gospel message.

These are a few of the reasons why having the correct calendar is so important.

What's more, the word for *seasons* in Genesis 1:14 is the Hebrew word *moedim* meaning "appointed times" or "festivals," and refers to special occasions (e.g., the biblical Sabbath and festivals) when YHVH commands his people to meet with him. He gave them a calendar by which they could fulfill these commands. When his people meet on the wrong days, or in ways that he had not specified, it interferes with and denigrates his divine order. This brings spiritual confusion to his people resulting in their failure to understand the steps in his plan of salvation. YHVH considered this to be a violation of his Word and a serious offense. He decried their devising their own calendars and inventing their own holidays (Isa 1:13-15). In Isaiah 1:13, YHVH literally calls these invented holidays of men "evil assemblies" (NIV) — something YHVH declares that he hates, and which are troublesome and wearisome to him (verse 15).

If one desires to be pleasing to YHVH Elohim and thus receive his divine favor and blessings, then it is imperative that we play by *his* rules and follow *his* instructions (i.e., the Torah or the first five books of the Bible). Having a correct understanding of *his* calendar and *his* feasts (as revealed in the Torah) is critical if we as followers of YHVH's Word as revealed in the Scriptures (i.e., Genesis to Revelation) are to live in a synchronized, loving and blessed relationship with him. This is how the saints walk in righteousness (as defined by YHVH's Torah-commandments, see Ps 119:172; John 14:15). The Scriptures liken the righteous deeds of the saints metaphorically to clean (white) linen robes, which the saints are wearing (Rev 19:8). This is a major aspect of walking in righteousness before YHVH Elohim. It's that simple!

## Calendar Confusion

For many people, the subject of the biblical calendar is intimidating. To unravel its complexities, it would seem necessary to possess more than a cursory knowledge of the Hebrew language, as well as a working knowledge in a

1. See my article entitled "The Sacred Feast Days of YHVH Elohim — A Glorious Template of YHVH's Plan of Redemption" at <http://www.hoshanarabbah.org/pdfs/feasts.pdf>.

number of biblically-related fields including the biblical festivals, the customs of the ancient Israelites, astronomy, the history of ancient and modern calendars, and the agricultural practices in ancient Israel. Is it any wonder that many folks shy away from tackling the subject of the calendar?

When I first began studying the biblical calendar some 35 years ago, I became so confused that I didn't revisit the subject for 25 years! Like so many others, I felt intimidated and overwhelmed, and I convinced myself that it was too complicated to understand. What was I to do since I still needed to know when to celebrate YHVH's feasts? Like so many folks, I closed my mind off, and defaulted to the traditional position of relying unquestionably upon the rabbinic (modern) Jewish calendar. I just assumed that the Jewish sages must be the leading experts on the subject, and that I could trust their calendar. I assumed that their calendar was the same one used by Yeshua and the early believers. After all, I reasoned, didn't Paul tell us that unto the Jews were committed the oracles of Elohim (Rom 3:2)? We could trust them. Right?

### **To Follow the Traditional (Modern) Jewish Calendar or Not**

But then one day something dawned on me. Should I blindly be following the Jewish leaders about the calendar? After all, hadn't most of them missed the truth about Yeshua the Messiah? And don't those Jewish sages who have the oracles (i.e., the Torah of Elohim) today, still miss Yeshua, I asked myself? It then occurred to me that *just because YHVH has used the Jews to preserve the Torah and the Tanakh (the Old Testament) — the oracles of YHVH, doesn't mean that they teach it correctly, much less follow it!*

To my surprise, in my quest for truth, I learned that the Jewish calendar in use today is not the same one used in Yeshua's day. The Jews openly admit this! Go to any encyclopedia (especially the Jewish encyclopedias) and look up "Jewish calendar" and see for yourself. You will discover that their current calendar dates to circa A.D. 360 — more than three hundred years *after* Yeshua. Their calendar was borrowed from the Babylonians, having been adapted by the Jewish sages and authorized by Roman emperor Constantine. Yes! The same Jew-hating Constantine who — at the point of the sword — forced the early church fathers to break from the Jewish roots of the Christian faith, and officially to reject Sabbath (the seventh day) observance for Sunday (the first day) observance, and Passover for Easter. Furthermore, he helped to paganize Christianity. Why did the Jews swap the biblical calendar for the current one they use? They had their reasons, and some of those reasons were good.<sup>2</sup> But the fact remains that it still *is not* the calendar of the Bible!

How can we say so dogmatically that rabbinic Jews don't have the calendar of the Bible, and that their calendar of today doesn't follow the Bible? I can think of two reasons. Number one, they admit it!<sup>3</sup> Secondly, more times than not, the feast days on their calendar *do not* fall on the right days according to the heavenly clock of the moon, and therefore, their calendar is out of sync with the clear commands of the Word of Elohim. (We'll discuss this more later.) When this occurs, this makes their feast days simply the substitutionary holidays of men, and *not* the biblically-ordained appointed times or feasts of YHVH — something that YHVH calls "evil assemblies," and declares that he hates, and which are troublesome and wearisome to him (Isa 1:13–15).

Some believers in Yeshua today reason that we must follow the Jewish sages and their calendar no matter what, and that only they have the divine right or prerogative to establish the biblical calendar. To this I would respond as Peter and John did when what they taught went cross-grain to the religious establishment of their day. When the Jewish leaders (the great council of the Sanhedrin) commanded these disciples of Yeshua to stop preaching in his name, they replied, "Whether it be right in the sight of Elohim to listen to you more than to Elohim, you judge" (Acts 4:19). Similarly, in our day, we don't follow the Jewish leaders in their rejection of Messiah Yeshua, so why should we follow them in their other errors including the calendar? Quite honestly, to follow them in their error is to commit error ourselves, and to yield to a spirit of humanism and ecumenism.

What's more, Yeshua clearly gave the authority of the Sanhedrin (the ruling body of Jewish leaders in Yeshua's day) over to his disciples. No longer do we need to look to the authority of the Jewish leaders for determining how to obey YHVH, nor for making rulings pertaining to religious service. First of all, there is no Sanhedrin today to tell us these things. Secondly, in Matthew 16:17–19, Yeshua clearly transferred to his apostles — the church leaders of that time — the authority of the Sanhedrin to make binding rulings and decisions about spiritual matters pertaining to his *kahal* (congregation or church). This authority would include making determinations about

2. For more information on this subject, please read my article entitled, "The Biblical Calendar and the New Moon" at [http://www.hoshanarabbah.org/pdfs/new\\_moons.pdf](http://www.hoshanarabbah.org/pdfs/new_moons.pdf).

3. Ibid.

the biblical calendars. No longer, does the *kahal* of Yeshua have to wait for a Jewish Sanhedrin to form to tell them how to follow the Word of Elohim with regard to the biblical calendar or any other subjects for that matter. The spiritual leaders of the saints can simply teach and do what the Bible says, and heaven will honor or endorse our decisions! That's what Yeshua says in Matthew 16:19. And this is exactly what his apostolic leaders did in Acts 15 at the first apostolic counsel.

### Biblical Truth Is Child-like Simple

You've no doubt heard the oft-repeated idiom, "It's not rocket science!" in response to someone who is making something complicated that is not. The same could be said about the biblical calendar. The Israelites of the Bible were, for the most part, a simple and an agrarian people. The calendar they possessed fit their needs and was "user-friendly." To understand and use it didn't require advanced degrees in religious, astronomical and mathematical studies from the best schools in Egypt, Greece or Babylon. The average farmer, along with his wife and children, could understand it. It was that simple. Such is the case with all the truths of the Bible. Those who make biblical truth complicated either have an agenda and something to hide, or don't understand the subject well enough to teach it simply.

Yeshua was the most brilliant teacher of all time; what he taught has revolutionized the world for 2000 years. His teachings were succinct and pithy, but their brevity belies their depth and profundity. Yeshua illustrated this point by taking a little child, placing the child in the middle of his disciples, and then taught them that unless they become like a child, they would not find entrance into the kingdom of heaven. There is an ocean of truth to be learned from this simple lesson, but one take-home point is this: for a child to understand something, it must be simple. The implication is that the truth of Elohim is so simple that a child can understand it, and thus find entrance into YHVH's eternal kingdom. Such is the case with the truth of the biblical calendar, which we will now explore.

### Overview of the Biblical Calendar

As noted earlier, the biblical calendar is alluded to in the first chapter of the Bible where it is recorded that Elohim created the sun, the moon and the earth. Genesis 1:14 reads,

And Elohim said, "Let there be lights in the firmament of the heaven to divide the day from the night; and let them be for [visible] signs, and for seasons, and for days, and years."

The cyclical patterns of these three astral bodies act in concert like a giant clock or time piece, and how they relate to each other determines time on earth. This is not hard to understand, and we can all relate to this. One day is one revolution of the earth in respect to the sun. One hour is one revolution divided into 24 equal parts. One month is the length of time it takes for the moon to complete a lunar cycle. One year is the time that it takes for the earth to move around the sun.

Our modern calendar is solar-based. A solar year, 365¼ days, is the length of time it takes for the earth to travel around the sun. On our calendars, this solar year is divided arbitrarily into roughly 12 equal parts of 30 to 31 days except for February, which has 28 and sometimes 29 days. We call these months. Every four years an extra day is added to February to account for the one-quarter day each solar year has.

However, there is something called a lunar year as well. This year is based not on how long it takes for the earth to travel around the sun, but rather on 12 lunar cycles of the moon. A lunar cycle—the length of time it takes for the moon to go through all of its phases—is approximately 29½ days. Since it is impossible to have half days, the months in this year are either 29 or 30 days in length. On this calendar, one lunar cycle equals one month.

So the solar year is 365¼ days long, while the lunar year is 354 days long. "So what?" you may ask. The problem is this: The biblical year is primarily based on the lunar year of 354 days, which is *11 days shorter than* the solar-based year. This is where the calendar issue gets a little technical.

The Bible teaches that the biblical feasts must occur "in their seasons" (Lev 23:4). This means that Passover,<sup>4</sup> Unleavened Bread<sup>5</sup> and Pentecost<sup>6</sup> must occur in the spring season of the year, while the Day of Shofar Blasts,<sup>7</sup>

4. For information on Passover, see <http://www.hoshanarabbah.org/pdfs/whypassover.pdf> and <http://www.hoshanarabbah.org/pdfs/lamb.pdf>.

5. For more information on the Feast of Unleavened Bread, see <http://www.hoshanarabbah.org/pdfs/unlbread.pdf>.

6. For more information on the Feast of Weeks, see <http://www.hoshanarabbah.org/pdfs/shavuot.pdf>.

7. For more information on the Day of Shofar Blasts (aka, Yom Teruah, the Day of Trumpets or Rosh Hashana) see [http://www.hoshanarabbah.org/pdfs/yom\\_teruah.pdf](http://www.hoshanarabbah.org/pdfs/yom_teruah.pdf).

Atonement,<sup>8</sup> the Feast of Tabernacles<sup>9</sup> and the Eighth Day<sup>10</sup> must occur in the fall season. Since the seasons are based on the solar year, each season is three months long, which means that the seasons change from one to another on the basis of the sun's position in relationship to the earth. For example, the winter solstice marks the time when the sun is at its lowest point over the horizon each year and the daylight period is at its shortest. This is the dividing line between fall and winter. The summer solstice marks the time when the sun is at its highest point over the horizon and daylight is at its longest. This is the dividing line between spring and summer. Similarly, the equinox marks the time when the sun crosses the celestial equator and when day and night are equal in length. The spring or vernal equinox occurs at the transition point between winter and spring (approximately March 21), and fall equinox occurs as the summer gives way to fall (approximately September 21). Since the biblical feasts are tied to the spring, summer, and fall agricultural cycles, it is imperative that they occur "in their seasons." There is a spiritual reason for the feasts to be linked to the seasonal agricultural cycles, and it relates to YHVH's plan of salvation. This is a study beyond the scope of this present work; however, we have a series of articles on our website that explain each of YHVH's feasts and their relationship to the seasons.<sup>11</sup>

A problem exists because there is an 11-day differential between the solar year (365¼) and the lunar year (354 days). If the biblical feasts were based strictly on the lunar year of 354 days, this would mean that after each solar year of 365 days, the biblical feasts (which are based on the shorter lunar year) would slide backwards 11 days each year. For example, if Passover were on March 30 one year, it would slide back to March 19 the next year, and another 11 days the next year and so on. In only three years, Passover would be a whole month earlier and would now be in the winter season, rather than in the spring as the Bible dictates. Passover would no longer be "in its season." Eventually, given enough time, Passover would be in the fall, then in the summer and then back in the spring again. Somehow, the lunar and solar calendar have to be made to work together. The 11-day differential has to be accounted for, and the feasts must remain "in their seasons." This means that somehow, approximately every three years, an additional month needs to be added to the biblical calendar to bring the shorter lunar year into sync with the longer solar year.

How does the biblical calendar accomplish this? The means of reconciling these two calendars is often the cause of disputes arising over the calendar. Some people resolve this difficulty by relying on the naturally occurring agricultural phenomena, while others add an extra month (called *intercalation*) based on astronomical and mathematical criteria. The former is how YHVH instructed the ancient Israelites to resolve the differential between the lunar and the solar years, while the latter is the non-biblical means (a method borrowed from the Babylonians) that the Jewish sages used in the time of Constantine (the fourth century) to reconcile the two calendars. These two calendars (the biblical and the modern Jewish calendar) were not created equally. That is to say, the dates of the biblical feasts sometimes fall on the same days on both calendars, but not usually. At times, the rabbinic calendar will be off a whole month from the agriculturally-based biblical calendar. This presents a real problem for those who want to keep YHVH's feasts on the correct days based on biblical protocols. If the feasts fall on the wrong days, then they are not YHVH's feasts, but merely men's invented holidays. In a sense, the biblical feasts are like our modern birthdays or anniversaries, which have to fall on the correct day each year. If one celebrates one's birthday on a different day, then it's not one's actual birthday. It's merely a substitute for the real thing.

When the current Jewish calendar was invented in the fourth century, it was extremely accurate. However, as time progressed, the calendar became more inaccurate. This is a fact that Jewish scholars and sages readily recognize and admit.<sup>12</sup>

The modern Jewish or rabbinic calendar has a second glaring weakness. Not only does it arbitrarily add in extra months every so often irrespective of the agricultural conditions in the land of Israel, but it disregards the appearance of the new moon. Yes, this is true. While purporting to be a lunar-based calendar, it rarely if ever starts its months on the occurrence of the new moon sighting. This is a serious problem and a violation of the Torah, which specifies that the biblical feasts must occur on certain days of the month. Leviticus 23 tells us which days each of the feasts are to fall on. For example, Passover (*Pesach*) has to fall on the 14th day of the first month on the biblical

8. For more information on the Day of Atonement, see [http://www.hoshanarabbah.org/pdfs/yom\\_kippur.pdf](http://www.hoshanarabbah.org/pdfs/yom_kippur.pdf).

9. For more information on the Feast of Tabernacles, see <http://www.hoshanarabbah.org/pdfs/sukkot.pdf>.

10. For more information on the Eighth Day, see <http://www.hoshanarabbah.org/pdfs/sukkot.pdf>.

11. Go to <http://www.hoshanarabbah.org/teaching.html#feast>.

12. See <http://www.jewishencyclopedia.com/view.jsp?artid=43&letter=C&search=Calendar#ixzz16neoLpd7> and <http://sites.google.com/site/moon-soc/Home>.

calendar, while the Feast of Unleavened Bread (*Hag haMatzot*) must fall on the 15th day of the first month. In the fall, the Bible tells us that the Day of Shofar Blowing (*Yom Teruah*, also known in rabbinic circles as *Rosh Hashana*) must fall on the first day of the seventh month. The first day of the month is called *Rosh Chodesh* meaning “the Head/Beginning of the Month.” With the biblical calendar, *Yom Teruah* always falls on the first day of the seventh month as the Torah prescribes in Leviticus 23. However, with the rabbinic calendar, this is seldom the case. Therefore, the rabbinic Jewish *Yom Teruah* seldom falls on the correct day, which means it is *not* the actual Day of Shofar Blowing, but a man-made substitute and something YHVH hates (Isa 1:14). Many Jewish leaders know and admit that they’re celebrating their biblical feasts on the wrong days, but they refuse to follow the Word of Elohim! The Jewish rabbis have long believed that they have the divine right and authority to change the Word of Elohim. Many Jewish roots Christians naively follow these Jewish leaders, even though the Bible clearly instructs us *when* to observe YHVH’s feasts. Additionally in the Torah, YHVH commands his people to *not* follow a multitude to do evil (Exod 23:2). Again, YHVH inspired the prophet Isaiah to declare that YHVH hates men’s invented holidays, which he calls “evil assemblies” (Isa 1:13–14, NIV). Coming to the reality of this truth may be a bitter pill for some well-meaning individuals to swallow, but it is the truth. Men are always presented with two options when it comes to their relationship with Elohim. They can either follow his Word, or twist it — as Adam and Eve did at the tree of the knowledge of good and evil — to fit what *they think* is right. The choice is ours: to do it YHVH’s way, or our way. The former is the path that leads to a righteous relationship with YHVH, while the latter is a path that leads away from YHVH and into sin.

### **The Biblical Calendar Was Divinely Revealed**

The Bible is a book comprised of divine revelation — knowledge that humans could not attain by any other means than YHVH Elohim. He supernaturally revealed to his chosen people, the Israelites, the understanding and means of entering into a holy (set-apart) and righteous relationship with him. This involved doing specific things and acting a prescribed manner that was different from that of the surrounding heathen nations. What YHVH gave them was a plan of redemption (or salvation) through which they could be spiritually transformed from a state of sinfulness and separation from him into a sin-free, righteous and loving relationship with him. The blueprint or backbone of this plan of salvation involves the weekly seventh-day Sabbath and the seven biblical feasts. These Sabbaths are representative of higher spiritual truths and realities, and those who walk out these sacred times come to an understanding of these deeper spiritual mysteries, thus bringing the obedient practitioner into a deeper spiritual relationship with YHVH.

In order that his people could keep his Sabbaths at the correct times and on *his* schedule so that no spiritual meaning would be lost along the way, he gave his divine calendar to the children of Israel when he called them out of Egypt. Though some Bible teachers assert that the Israelites received their calendar from the Egyptians (or other pagan societies) through Moses, there is no biblical record of this, nor is there any ancient Jewish tradition to justify this assertion. YHVH gave his people a calendar and the know-how to keep it going without having to rely on any outside (pagan) sources. Let us now explore the evidence of this from the biblical record.

### **What Are the Mechanics of Reconciling the Lunar and Solar Calendars?**

We will now show you the mechanics of how the ancient Hebrews used agricultural means, and not mathematical and astronomical calculations, to reconcile the lunar and solar calendars. YHVH gave the Israelites, whose society was largely agrarian, simple methods that everyone from the lowest to the highest socioeconomic echelon could use to figure out the calendar. This means that the Israelites didn’t have to rely on the stars or on astronomical or zodiacal signs, for this information as did the Babylonians. Neither did the Israelites have to travel to foreign lands to learn the wisdom of the pagans regarding advanced mathematical or astronomical calendrical calculations. They were totally self-sufficient and based their calendar calculations solely on divine revelation from Elohim (as recorded in the Torah-Scriptures) and on their understanding of agriculture.

### **YHVH Gave the Israelites His Calendar**

The Torah tells us that YHVH Elohim divinely revealed to the children of Israel while they were still in Egypt *when* the first month of the year was to be and *how* to determine when that first month was. They *did not* rely on the “wisdom” and “higher learning” of the surrounding pagan societies. Even as the Torah records that YHVH divinely revealed many things to the Israelites through Moses, the calendar was no exception.

Why was it necessary for them to have this information at this time? Simply this. As YHVH was leading the

Israelites out of Egypt, he was also revealing to them the truth of the biblical feasts. Without a calendar, there was no way to know when to keep YHVH's feasts — also called *appointed times* (Heb. *moedim*).

The Torah-Word of Elohim states that the new year starts when the new moon is sighted, which marks the first day of the month *after* the barley was found to be “green in its head” (Heb. *abiv*, *aviv*, or *abib*, Exod 9:31; 12:1–2; 13:4). This determines the entire calendar for the upcoming year including when to observe YHVH's commanded annual feasts or holidays (Lev 23). Therefore, the moon and the barley acting together determine the start of the biblical new year. Furthermore, we learn in Psalm 104:19 that the moon's purpose is to determine the biblical feasts when it says YHVH “appointed the moon for seasons [Heb. *moedim*, which means ‘appointed times’ or ‘biblical holidays’].” So the moon, in conjunction with the barley, determines the beginning of the new year, and establishes the timing of the biblical holidays.

In ancient Israel, the new moon was determined by visible sighting with the naked eye. When the first sliver or crescent of the new moon was visible, this marked the beginning of the first day of the month. There is absolutely no doubt that this is how the Israelites marked the beginning of the new month. The leading historical records and expert scholars are dogmatic and unanimous on this subject.<sup>13</sup>

There are 12 and sometimes 13 new moon sightings in any given year, so how do we know *which* new moon is the beginning of the year? The Bible doesn't leave us guessing on this point. It gives us one indicator, and one indicator only: the barley. This is not guess work or supposition, for the Word of Elohim is clear on this point, as we read in Exodus 12:2,

And YHVH spoke unto Moses and Aaron in the land of Egypt, saying “This shall be unto you the beginning of months: it shall be the first month of the year to you.”

If we read further in Exodus 12, we will see that this first month occurred at the time of the Passover and Feast of Unleavened Bread, with Passover beginning on the fourteenth day of the first month (verse 18). But how do we know which month is the first month? This is where the agricultural indicator comes into play.

In Exodus 13:4, we see that YHVH makes a connection between the barley and the first month of the year. He literally tells us which month in the spring is to be reckoned as the first month of the year. There we read, “This day you came out in the month of the *Abiv*.” The word *month* here is *chodesh* (the Hebrew word for “month”), and the word *abiv* (אֲבִיב; *Strong's* H24, alternative transliterated spellings include *aviv* or *abib*) means “fresh, young barley ears or literally green in the ears.” So literally, when YHVH called the first month by the name *Abiv*, he was calling it the month of the “green barley ears.” Here YHVH clearly reveals in which season the new year was to begin. The new moon immediately following this agricultural occurrence marked the beginning of the new year. In Deuteronomy 16:1, YHVH issues this command to the Israelites, “Observe the month of the *Abiv*, and keep the Passover unto YHVH your Elohim, for in the month of the *Abiv* YHVH your Elohim brought you forth out of Egypt by night” (see also Exod 23:15 and 34:18).

### The Facts About the *Abiv* Barley

Barley was cultivated as a grain crop in ancient Egypt, as well as in Israel, and grows wild like a weed throughout the region to this day. Several passages in the Scriptures witness to the fact that the barley was the indicator of which month was to be the first month of the year.

Observe **the month of *Abib***, and keep the Passover unto YHVH your Elohim: for in **the month of *Abib*** YHVH your Elohim brought thee forth out of Egypt by night. (Deut 16:1, emphasis added)

Please notice, the definite article *the* preceding the phrase “month of *Abib*.” This indicates a specific month. It is not so much the name of a month as it is a description of the month. Below are listed the other three places in the Scriptures where this phrase is found.<sup>14</sup>

This day came you out **in the month *Abib***. (Exod 13:4)

You shall keep the Feast of Unleavened Bread: (you shall eat unleavened bread seven days, as I commanded thee, in the time appointed of **the month *Abib***; for in it you came out from Egypt: and none

13. For documentation and a complete discussion of this subject, see my article “The New Moon: Visible or Conjunction” at [http://www.hoshanarabbah.org/pdfs/vis\\_moon.pdf](http://www.hoshanarabbah.org/pdfs/vis_moon.pdf).

14. Most but not all Christian and Jewish Bible translators translate the phrase כַּחֲדָשׁ הָאֲבִיב as “the month of *abiv*,” although some Jewish scholars translate it as “the month of the *abiv*” (see Nehemiah Gordon at <http://www.karaite-korner.org/abib.shtml>), or as “the month of the standing corn [*corn* is 19th century English lingo for *grain*]” (see Samson Raphael Hirsch in his Hebrew translation and commentary notes on Exod 13:4).

shall appear before me empty). (Exod 23:15)

The feast of unleavened bread shall you keep. Seven days you shall eat unleavened bread, as I commanded you, in the time of **the month *Abib***: for in **the month *Abib*** you came out from Egypt. (Exod 34:18, emphasis added on all)

What does the word *abiv* in the phrase “the month of the *Abib* (or *Aviv/Abiv*)” mean? Is this some undefinable Hebrew word the meaning of which has escaped us, leaving us still clueless about when the beginning of the biblical new year is? That is hardly the case, as we shall now see.

The Hebrew word *abiv* is found only six times in the Bible and is transliterated into the English (in the kjv) as “*abib*,” meaning “in the ear,” or “green ears of grain.” *The Theological Wordbook of the Old Testament*, defines the word *abib* or *aviv* as follows:

This noun refers to barley that is already ripe, but still soft, the grains of which are eaten either rubbed or roasted. The ASV and RSV agree (but see Lev 2:14). The seventh plague brought ruinous hail upon Egypt’s barley crop at least two weeks before it was fully ripened and ready for harvest (Exod 9:31). *Abiv* was also the early name (later, *Nisan*) of the first month of the Jewish calendar (the month of Passover). In that month the barley came to ear, but the usual time of harvest was the second month (*Iyyar*). According to Lev 2:14 the grain offering was to consist of the firstfruits of *abiv*.

The remaining biblical passages where the word *abiv* is used are the following:

And the flax and the barley was smitten: for the barley was in the ear (*abiv*), and the flax was balled [in the bud]. But the wheat and the spelt were not smitten: for they were not grown up. (Exod 9:31–32)

And if you offer a grain offering of your firstfruits unto YHVH, you shall offer for the grain offering of your firstfruits green ears [*abiv*] of corn dried [*kalui*, which means “grain which is parchable”] by the fire, even corn beaten [*carmel*, which means “barley that is past *abiv* state, like Indian corn; referring to grain that is hard enough to be crushed; *abiv* grain is like corn on the cob, while *carmel* grain is like Indian corn. *Abiv* grain one can eat raw, while dried corn is milled for corn meal. For *abiv* grain to be ground into flour, one must first dry it (so it won’t gum up the grinding stones).] out of full ears. (Lev 2:14)

The standing grain refers to grain that’s in its dry or *carmel* state and ready to be harvested for the *omer* offering. Crushable or grindable grain occurs about two weeks after *abiv* is found.

On this day in the month of *Abib*, you are about to go forth. You shall observe the Feast of Unleavened Bread; for seven days you are to eat unleavened bread, as I commanded you, at the appointed time in the month *Abib*, for in it you came out of Egypt. ...And none shall appear before Me empty-handed. ...You shall observe the Feast of Unleavened Bread. For seven days you are to eat unleavened bread, as I commanded you, at the appointed time in the month of *Abib*, for in the month of *Abib* you came out of Egypt. ...Observe the month of *Abib* and celebrate the Passover to the LORD your God, for in the month of *Abib* the LORD your God brought you out of Egypt by night. (Exodus 13:4; 23:15; 34:18; Deuteronomy 16:1, NAS95)

Here are some more insights from an expert about the *abiv* barley.

*Abib* indicates a stage in the development of the barley crops. This is clear from Exodus 9:31–32 which describes the devastation caused by the plague of hail:

And the flax and the barley were smitten, because the barley was *abib* and the flax was *giv’ol*. And the wheat and the spelt were not smitten because they were dark [*afilot*].

The above passage relates that the barley crops were destroyed by the hail while the wheat and spelt were not damaged. To understand the reason for this we must look at how grain develops. When grains are early in their development they are flexible and have a dark green color. As they become ripe they take on a light yellowish hue and become more brittle. The reason that the barley was destroyed and the wheat was not is that the barley had reached the stage in its development called *abib* and as a result had become brittle enough to be damaged by the hail. In contrast, the wheat and

spelt were still early enough in their development, at a stage when they were flexible and not susceptible to being damaged by hail. The description of the wheat and spelt as “dark” (*afilot*) indicates that they were still in the stage when they were deep green and had not yet begun to lighten into the light yellowish hue which characterizes ripe grains. In contrast, the barley had reached the stage of *abib* at which time it was no longer “dark” and at this point it probably had begun to develop golden streaks.

We know from several passages that barley which is in the state of *abib* has not completely ripened, but has ripened enough so that its seeds can be eaten parched in fire. Parched barley was a commonly eaten food in ancient Israel and is mentioned in numerous passages in the Hebrew Bible as either “*abib* parched (*kalui*) in fire” (Lev. 2:14) or in the abbreviated form “parched (*kalui/ kali*)” (Lev 23:14; Jos 5:11; 1 Sam 17:17; 1 Sam 25:18; 2 Sam 17:28; Ruth 2,14).

While still early in its development, barley has not yet produced large enough and firm enough seeds to produce food through parching. This early in its development, when the “head” has just come out of the shaft, the seeds are not substantial enough to produce any food. At a later stage, the seeds have grown in size and have filled with liquid. At this point the seeds will shrivel up when parched and will only produce empty skins. Over time the liquid is replaced with dry material and when enough dry material has amassed the seeds will be able to yield “barley parched in fire.”<sup>15</sup>

So the barley being in its *abiv* state eliminates the guesswork of determining *which* new moon begins the new year. The Scriptures are clear. It is the new moon that *immediately follows* the *abiv* barley that determines the beginning of the year.

After the *abiv* barley is found and the first visible sliver of the new moon is sighted marking the first day of the first month of YHVH’s biblical calendar, 14 days later is Passover (*Pesach*) with the Feast of Unleavened Bread (*Hag HaMatzot*) immediately following on the fifteenth day of the first month. Then on the day after the weekly Sabbath that occurred during the seven-day Feast of Unleavened Bread, a sheaf of now-ripened barley was cut and waved heavenward by the High Priest to be accepted by YHVH as the first of the first fruits offering of the upcoming barley harvest. I have written extensively on this subject in another teaching article relating to the spring feast days, which can be found on our website.<sup>16</sup> Suffice it to say that the barley that was lifted heavenward and waved was a prophetic picture of Yeshua the Messiah’s ascension to heaven after his resurrection where he was accepted by the Father as the perfect sin offering covering the sins of mankind. Fifty days later to the day is the Feast of Pentecost (*Shavuot*)<sup>17</sup> picturing the ripening of the larger wheat harvest, which was a prophetic picture of all Israel and the peoples of the nations coming to faith in Yeshua from the first century until the present time. As you can see, an understanding of the *abiv* barley is essential not only in setting the biblical calendar for the year, but for knowing when to keep the biblical feasts, and for gaining a fuller understanding of the salvific implications of the death, burial and resurrection of our Master and Savior, Yeshua the Messiah from a Hebraic perspective.

### What Do Modern Agronomists Have to Say About the *Abiv* Barley?

Some Bible students may find the *abiv* barley means of determining the beginning of the new year to seem a bit quaint, over simplistic, and even subjective or arbitrary. After all, is it possible to understand what the term *abiv* really means in modern terms? Wouldn’t it be more accurate to determine the biblical calendar based on the seemingly more scientifically accurate natural phenomena as the astronomical conjunctions of the new moon and the vernal equinox?

Though valid questions, there is nothing arbitrary or subjective at all about the concept of *abiv* barley, for it is an actual stage of the maturation process of the barley fruit that is well-documented by modern science. This is the system Elohim established. He *did not* instruct his people to use the astronomical conjunction, the vernal equinox or any other mathematical or astronomical methods to determine the beginning of the new year.

With regard to understanding in modern terms the concept of *abiv* barley, we need to know that the science of crop production and soil management is called *agronomy*. An *agronomist* is an expert in *agronomy*. Many universities have agronomy programs and offer degrees (including PhDs) in this field of science. Barley is a grain crop that is grown in the U.S., and American universities on their websites discuss these issues. For example, the

15. See <http://www.karaite-korner.org/abib.shtml>.

16. See <http://www.hoshanarabbah.org/pdfs/firstfruits.pdf>.

17. For more information on the Feast of Weeks (i.e. *Shavuot* or Pentecost) see <http://www.hoshanarabbah.org/pdfs/shavuot.pdf>.

University of Missouri, Plant Sciences Department states the following:

“Profitable small grain production requires a thorough knowledge of crop development and growth, and how cultural and environmental factors can influence crop development. Crop and weed response to inputs such as fertilizers, pesticides, plant growth regulators and supplemental irrigation **depend on the stage of development rather than on calendar date**. Improper application timing may reduce chemical or fertilizer effectiveness, and, in some cases, result in crop injury and yield loss.” The stages of barley development (called the *phenology of barley*) **is not based on a subjective or arbitrary judgment on the part of the barley grower, but is a scientifically definable set of criteria (called the Zadoks Code), which is the normative standard for determining the stages of barley development**. As noted above, a competent farmer cannot manage his barley crop (e.g., fertilization, pesticide application, irrigation, the application of plant growth regulators, etc.) by depending on calendar dates, but must do so **on the basis of physical observation and determination of which stage the barley is at** so that he knows when to apply management practices to his crop. As any farmer or horticulturist knows, fruit, vegetables, **grains, berries, etc. come ripe at different times on the calendar from year to year depending on the climate variables. In one year, a crop may come ripe several weeks earlier or later than a previous year depending on the weather.**<sup>18</sup> (emphasis added)

What we learn from these experts is that there are definable, scientifically-based stages of development of barley that are not based on the arbitrary or subjective judgment of the grower, but based on a set of scientific criteria based on empirical evidence called the Zadoks Scale. Furthermore, a farmer must continually be examining his barley crop to know at what stage of development it is, so that he will know when to apply fertilizers, pesticides, irrigation, and plant growth regulators. Barley ripening is also conditional from year to year on the variabilities of the climate. This means that each year the farmer will have to follow a slightly different timetable pertaining to management practices. The same was true in ancient Israel. Sometimes the barley crop was *abiv* earlier or later depending on seasonal climate fluctuations. Because of these fluctuations, relying solely on the equinox was not a reliable indicator for determining when to harvest a crop.

The *abiv* barley stage on the Zadoks Scale is termed as the “Dough Development” stage and has a Zadok rating of 80 to 87 with 40 being seed germination and 91 to 99 being ripe and ready for harvest. The University of New Mexico explains the stages of development (with photos) of barley from the dough to the ripe stage as follows:

“Once head emergence and pollination have occurred, kernels begin to develop (figure 11). The length of the barley kernel is established first, followed by its width. This helps explain why thin barley developed under stress conditions is usually as long as normal grain, but is narrower. Figure 11 shows the physical changes as a kernel develops. The first period of kernel development, designated the “watery ripe” and “milk” stages, lasts about 10 days. Although the kernels do not gain much weight during this phase, it is extremely important because it determines the number of cells that will subsequently be used for storing starch. Kernels crushed in this stage initially yield a watery substance which later becomes milky. Kernels that are storing starch and growing rapidly are characterized by a white semi-solid consistency termed “soft dough.” This period usually lasts about 10 days following the milk stage. Finally, as the kernel approaches maturity and begins losing water rapidly, its consistency becomes more solid, termed “hard dough.” This is when the kernel also loses its green color (figure 11 ).

When kernel moisture has decreased to about 30 to 40 percent, it has reached physiological maturity and will not accumulate additional dry matter. The final yield potential has been established at this time. An easily identified field indicator of physiological maturity is 100 percent loss of green color from the glumes and peduncle. ( figure 12 ). Although the moisture content of the grain is still too high for direct combining, it can be swathed and windrowed. When kernel moisture has decreased to 13 to 14 percent, the barley kernel is ready for combining and threshing.”<sup>19</sup>

What we learn from this is that *abiv* barley is an actual stage of the maturation process of the barley fruit that is

18. See <http://plantsci.missouri.edu/cropsys/growth.html>.

19. See <http://www.extension.umn.edu/distribution/Cropsystems/DC2548.html>. For a list of stages with descriptions also see <http://plantsci.missouri.edu/cropsys/growth.html>. Photos of barley kernel at the different stages can be found at <http://www.extension.umn.edu/distribution/Cropsystems/DC2548.html#fig11>.

documented by modern science.

### A Quick Review

Let's quickly review what we have learned so far.

- ☞ YHVH established a biblical calendar at the time of creation. This calendar determines his appointed times for his Sabbaths or feasts when he commands his people to meet with him.
- ☞ There is a solar year and a lunar year. The latter is 11 days shorter than the former.
- ☞ The biblical month begins at the first visible sighting of the sliver or crescent new moon.
- ☞ The feast days fall on certain days of the biblical month.
- ☞ The biblical calendar is based on a lunar year, but has to be reconciled to the longer solar year to keep the biblical feasts "in their season" (from sliding backwards each year by 11 days).
- ☞ YHVH divinely revealed his calendar to the Israelites when they were about to leave Egypt. They didn't obtain their calendar from secular and/or pagan sources.
- ☞ The feast days correlate to the four seasons.
- ☞ On the biblical calendar, the new year begins in the spring.
- ☞ To determine which month in the spring will begin the new year, the biblical calendar uses a certain stage of the barley development, which the Bible calls the *abiv* (barley stage). The barley is so significant in determining the beginning of the biblical new year that the Bible calls the first month of the year "the month of the *Abiv*."
- ☞ Historically, when the farmers of ancient Israel would first begin to find *abiv* barley in their fields, this would indicate that the very next new moon that would occur subsequently would mark the first month of the year, and hence the beginning of the new year. This fact is arrived at by comparing Exodus 9:31 with 12:2 and 13:4. Furthermore, as we shall see below, this is the understanding the ancient Israelite authorities operated under when determining the new year and the biblical festivals.

### The Importance of the *Abiv* Barley in the Spring Feasts

Not only was the barley important for helping to determine the beginning of the new year, but it had to be ripe for the new grain (or *omer*) offering that occurred during the Feast of Unleavened Bread. When the barley was found to be *abiv*, this set in motion a series of events in ancient Israel that was crucial to the Israelites' religious activities and their livelihoods. Let's now look at these events in the order they occurred.

- ☞ *Abiv* barley is found somewhere in the land of Israel. Since barley had to be harvested for the first fruits (*omer*) offering during Unleavened Bread (Lev 23:10–11), the first field of *abiv* barley to be found in Israel was considered to be the first fruits of the land.
- ☞ Once the *abiv* barley was found, the new moon watchers would keep lookout for the first sign of the visible sliver of the new moon.
- ☞ Once the new moon was sighted and confirmed by the leading authorities, the new year was proclaimed and the countdown to Passover commenced.
- ☞ During the interim from the time the *abiv* barley was found and Passover, the barley would continue to ripen and firm up. During this time, the barley would go from the *abiv* state to the *carmel* state meaning that barley fruit was now dry enough to be harvestable. Before the barley is *abiv* it is not harvestable. At this state, there is too much moisture content in the barley ear to be able to be ground into flour without gumming up the millstones. After it is *abiv*, barley can be harvested and parched with fire to dry out any remaining moisture in the ear so that it can be ground into flour without gumming up the millstones. This is important to know for reasons we will see below.
- ☞ Passover was celebrated on the fourteenth day of the first month.
- ☞ The Feast of Unleavened Bread was celebrated on the fifteenth day of the first month. This feast lasted for seven days until the twenty-first day of the first month.
- ☞ During the Feast of Unleavened Bread occurred a *moed* (appointed time) known as the Day of the First

Fruits (or *Yom Ha Bikurim*). It was not a Sabbath nor was it a feast (*chag*). On this day, the Israelite barley farmers brought an offering of their grain (called the *omer*) to the priests who then presented it to YHVH in the form of what the Scriptures call the wavesheaf (*omer*) offering (Lev 23:10–11). Until this wavesheaf offering was made, it was forbidden for an Israelite farmer to harvest his barley crop. (We will discuss this more below.) Once the priests waved the barley (called the *omer* or wavesheaf offering), the farmers were able to harvest their crops, which they began to do on that very day at about noon.

- ✎ The events and ceremonies surrounding the barley first fruits offering are very significant prophetically for redeemed believers, as it points to the time when Yeshua was cut off from the land of the living. Having suffered in the grave for the sins of mankind for three full days and nights, he was resurrected and was accepted by his Father in heaven as the perfect sin offering and first fruits of the resurrection from the dead.<sup>20</sup>
- ✎ First Fruits Day marked the beginning of the 50-day count of the *omer*, culminating with the Feast of Weeks (*Shavuot* or Pentecost)<sup>21</sup>, which was the next biblical festival the Israelites celebrated in the late spring (Lev 23:15–16).

### The Timing of the *Abiv* Barley

Barley, like a lot of agricultural crops, doesn't necessarily ripen all at the same time. Depending on micro-climates, topography and elevation, the barley in one region may mature faster than somewhere else. Although Israel is a small country, wild barley, for example, grows in Jerusalem at some 2,500 feet of elevation, while in the Jordan Valley (just 30 or 40 miles away) barley grows near the Dead Sea, which is more than 1,300 feet below sea level. Because it is warmer in the Jordan Valley, the barley there will sometimes ripen several weeks earlier than that in Jerusalem. This means that all over the land of Israel, the ancient Israelites were harvesting barley for a period of several weeks.

This begs the asking of a legitimate question. With barley coming *abiv* all over the land of Israel, at what point did the priests collect and wave a sheaf (or *omer*) of barley — at the beginning, middle or end of the barley harvest season?

### Why the Barley Was Not Allowed to Be Cut Before the Wave Sheaf Was Offered

When was the wavesheaf offering made — at the beginning, middle or end of the barley harvest cycle? Let's now answer this question.

The Bible is clear. The Israelites could neither harvest nor eat their spring barley crop until the priests made the wavesheaf offering on First Fruits Day (Lev 23:10–11,14; Deut 16:9). Not only does the Torah teach this, but Jewish historical sources such as the first-century Jewish historian Josephus recognize this fact as well. We read,

**But on the second day of unleavened bread, which is the sixteenth day of the month, they first partake of the fruits of the earth, for before that day, they do not touch them.** And while they suppose it proper to honour God, from whom they obtain this plentiful provision, in the first place, they offer the first-fruits of their barley, and that in the manner following: They take a handful of the ears, and dry them, then beat them small, and purge the barley from the bran; they then bring one-tenth deal to the altar, to God: and, casting one handful of it upon the fire, they leave the rest for the use of the priest; and **after this it is that they may publicly or privately reap their harvest.** (emphasis added).<sup>22</sup>

Leviticus 23:14 and Deuteronomy 16:9 along with the above quote from Josephus state that the Israelites weren't allowed to harvest their barley crop until the first fruit offering was made. Furthermore, Leviticus 23:10 states that the barley is to come from the land of Israel (not just from Jerusalem, which wasn't even in Israelite hands when Moses wrote Leviticus). This confirms the position of the modern Karaite Jews who search for ripening (*abiv*) barley throughout the land of Israel. Since Jerusalem is approximately 2500 feet above sea level, the barley in the valleys would become ripe much earlier than in Jerusalem (being at a higher elevation where the temperatures are cooler.) Therefore, if an Israelite farmer in the valley had to wait for the barley in Jerusalem to become ripe before being permitted to harvest his lower-elevation barley, his barley may rot on the stalk or fall to the ground mak-

20. For a full discussion of the spiritual significance of First Fruits Day, go to <http://www.hoshanarabbah.org/pdfs/firstfruits.pdf>.

21. For more information the Feast of Weeks, see <http://www.hoshanarabbah.org/pdfs/shavuot.pdf>.

22. See *Antiquities of the Jews*, Book 3, 10:5, by Flavius Josephus.

ing harvesting all but impossible except with a pair of tweezers! For this simple reason, wherever the barley first became ripe in Israel, that's when a sheaf was harvested to be presented as the wavesheaf offering. After that, as the barley came ripe across the land of Israel, farmers were free to harvest their crops, but not before.

### The Children of Israel and the *Abiv* Barley

When YHVH gave the revelation of the *abiv* barley to the children of Israel, they were still living in Egypt just prior to the exodus. The *abiv* barley had to be found in the land of Israel (Lev 23:9-10, as we shall see below). The ancient Israelites also sighted the new moon, and declared the new year from the land of Israel, which is in accordance with Micah 4:2 and Isaiah 2:3, which say that the Torah and the Word of Elohim must go forth from Zion and Jerusalem. This would include all decrees relating to the calendar.

The question has been asked, how did the Israelites know that the barley was *abiv* in the land of Israel when they were in Egypt? Just because it was *abiv* in Egypt doesn't mean it was *abiv* in the land of Israel (called the land of Canaan, at that time). Because of this, how do we know that we are to reckon the new year by the *abiv* barley in Israel? First, the Israelites knew when to start the new year because YHVH told the Israelites when to do so. (Obviously, one can logically deduce that in that first year, it happened that the barley in Egypt and in the Promised Land came *abiv* at the same time.) That's how they knew it was the correct time even though they weren't yet in the Promised Land. YHVH revealed it to them (see Exod 12:2 cp. 13:4).

One may then ask, how did the Israelites know when to keep the Passover and the biblical feasts during their wanderings in the wilderness if they weren't able to know when the barley was *abiv*, since they weren't yet in the Promised Land? The only record we have of the Israelites keeping another feast in the wilderness is Passover of the second year (a year after the Passover in Egypt, see Num 9:1-5). How did the Israelites know when to keep the Passover that year? The same way they knew when to keep it the previous year: YHVH revealed it to them. Once they entered the Promised Land, they could then observe the barley harvest and sight the new moon to determine when to start the year and when to observe YHVH's feasts. Indeed, this is what the ancient Jewish historians record that the Israelites did.

It wasn't until Joshua led the Israelites into the Promised land that there is any mention again of the Israelites keeping another Passover. At this time, they would have needed to know with certainty when the barley was *abiv*, and this they most certainly figured out based on what we read in Joshua 5:10-12.

### The Barley Was How YHVH Reconciled the Solar and Lunar Calendars

In the biblical calendar, YHVH regulated the beginning of the year by when the barley came *abiv*. Some years it became *abiv* a little earlier, and some years a little later, depending on the weather. If the barley was late in becoming *abiv*, then the result would be an additional month being added to the calendar (called *intercalation*). For that year, there would be 13 months or a second month *Adar* (in ancient Israel called an *Adar Bet* or literally *Second Adar*). In this manner, it just worked out naturally (by the hand of YHVH who regulates weather patterns) that approximately every three years, a thirteenth month was added to the calendar. Remember how we learned earlier that the lunar year has 11 fewer days than the solar year, and that unless those 11 days are added to the lunar year, the biblical feasts will slide backwards (with respect to the solar year and the seasons) by 11 days so that in three years the feasts will fall a whole month earlier. In six years, they'll be two months earlier, in nine years three months earlier and so on. Eventually, Passover would fall in December, and this is not biblically possible, since the feasts have to occur "in their season" (Lev 32:4). Passover, for example must fall in the spring and the Feast of Tabernacles in the autumn to fit the biblical spiritual types and shadows of YHVH's plan of salvation.

So the *abiv* barley not only determines which new moon starts the new year, but also when a thirteenth month is to be added to the calendar, which keeps the lunar and solar calendars reconciled to each other. In this way, Genesis 1:14 is fulfilled when it states that the sun determines days and years (and the weekly Sabbath), and the moon determines months and appointed times (the biblical festivals). Together, the sun and moon determine YHVH's calendar, which makes the biblical calendar neither strictly a lunar-based calendar (like the Moslem calendar) nor a solar-based calendar (like our modern calendars). Rather, it is a lunar-solar calendar.

Many of these concepts are summarized in the following quotation from an expert on the subject.

**[T]he ancient Jewish calendar depended not on mathematical calculations and arrangements, but was set from month to month according to the physical appearance of the new moon. Witnesses who had seen the first sign of the crescent on the horizon after sunset were expected to report the fact**

**to the authorities**, who thereupon published throughout the country the fact that a new month had begun. The year consisted of 12 months whose limits were determined **by these observations**. But, since the lunar year consists of only 354 days, eleven less than the solar year, it was necessary from time to time to “intercalate” a thirteenth month before the Passover, to prevent its being moved back into the winter. This intercalary month was a “second Adar” and was added whenever a consideration of the sun’s position in the heavens, the state of the crops, or the new-born lambs, made it appear necessary.

The intercalation of the additional month had, however, not only ritual but also economic implications, for according to the Law, no new Palestinian grain could be harvested or eaten before Passover. **We can readily see what financial stakes were involved, in consequence of this, in postponement of Passover both for the native grower of barley, who watched his harvest ripen but durst not touch it, and for the importer who was preparing to see the products of neighboring countries, Ammon and Egypt.**<sup>23</sup> (emphasis added on all)

Another Jewish expert observes that up until the second century of the common era, Jewish leaders in fact followed the *abiv* barley calendar. True, they supplemented the observance of the barley with their astronomical calculations of the equinox (which they learned from the pagan astrologers) and from other non-Biblical sources. Nevertheless, their writings reveal a recognition that the barley played a special role in when to intercalate or add an extra month to the year. A Brayta (a second century of the common era Tanaitic source) quoted in the *Talmud Bavli* says as follows:

Our Rabbis taught, Based on three things is the year intercalated: on the *Abib*, on the fruits of the trees, and on the equinox. Based on two of them the year is intercalated but based on one of them alone the year is not intercalated. And when the *Abib* is one of them everyone is pleased. (*Bavli Sanhedrin* 11b)

He goes on to say that another Brayta states,

Our Rabbis taught, The year is intercalated based on [the *Abib* in] three regions: Judea, Transjordan, and Galilee. Based on two of them the year is intercalated but based on one of them alone the year is not intercalated. And when Judea is one of them everyone is pleased because the Omer [Wave-Sheaf] Offering can only come from Judea.”(*Bavli Sanhedrin* 11b)<sup>24</sup>

### The Biblical Calendar and the Vernal (Spring) Equinox

An interesting permutation of the biblical calendar is what has become known as the vernal equinox calendar. Those who champion this view assert that the biblical calendar must be regulated by the sun and moon *only*, and that the *abiv* barley has little or no bearing on the biblical calendar. They state that the new month must fall *after* the vernal or spring equinox, which occurs approximately on March 21. In my extensive studies of the ancient biblical calendar, I can find no evidence to support this view. In fact, it was the Babylonians and Catholics (in determining Easter) that took this position — not the biblical Israelites!

It was the Constantine-era rabbinic calendar (commonly known as the Hillel II calendar and that is still in use today by most religious Jews worldwide) that coincided with the vernal equinox (not the biblical calendar that was in use at the time of Yeshua). According to the eminent Jewish scholar, Jacob Neusner, **the rabbinic or Hillel II calendar of Judaism (originating in ca. A.D. 360) “ensures that the festival of Passover falls at the full moon of the lunar month of *Nisan* (the fifteenth of *Nisan*), always coincides with the first full moon after the vernal equinox (Mar. 21), and that the festival of Tabernacles (Sukkot), which falls at the full moon of the lunar month of Tishri, always coincides with the first full moon after the autumnal equinox (Sept. 21) (emphasis added).”**<sup>25</sup>

The use of the spring and autumn equinoxes for determining the time of the spring and fall feasts is one of the main factors used in determining the feast days under the Hillel II calendar. It was, however, only a minor factor for the Jewish sages in determining the feasts in the (original or pre-Hillel II) biblical calendar system, which

23. (The Pharisees, pp. 601–602, by Louis Finklestein, professor of theology at Jewish Theological Seminary of America; Jewish Publication Society of America, 1938)

24. From [http://www.Karaite-Korner.org/abib\\_faq.shtml#rabbanites\\_and\\_abib](http://www.Karaite-Korner.org/abib_faq.shtml#rabbanites_and_abib).

25. *Dictionary of Judaism in the Biblical Period*, p. 111, by Jacob Neusner

the calculated calendar of the Jewish sages replaced. Another Jewish source states the following:

Every two or three years, as the case might be, an extra month was intercalated. The intercalation seems to have depended on actual calculation of the relative lengths of the solar and lunar years, which were handed down by tradition in the patriarchal family. Moreover, it was possible to judge by the grain harvest. If the month of *Nisan* arrived and the sun was at such a distance from the **vernal equinox** that it could not reach it by the 16th of the month, then this month was not called *Nisan*, but Adar Sheni (second).<sup>26</sup> (emphasis added)

Let's consider more scholarly and historical evidence on this subject.

[The Jews] at the time of Jesus Christ [did not] as yet possess any fixed calendar, but **on the basis of purely empirical observation**, on each occasion they **began a new month with the appearing of the new moon**, and likewise on the basis of each repeated observation intercalated a month in the spring of every third and second year, in accordance with the rule that **the Passover under all circumstances must fall after the vernal equinox**.<sup>27</sup> (emphasis added)

The rule, according to which it is determined whether to intercalate or not, was very simple. It required that care should be taken that the Passover festival, to be celebrated at the full moon in *Nisan* (14th *Nisan*), should in any case **fall after the vernal equinox**, when the sun stood in the sign *Aries*. ...With this also agree the statements of Philo and Josephus [*Ant.* iii. 10. 5]. **If one therefore toward the close of the year noticed that the Passover would fall before the vernal equinox, the intercalation of a month before *Nisan* would have to be resorted to**.<sup>28</sup> (emphasis added)

The year consisted of twelve months whose limits were determined by these observations [i.e., the visible sighting of the crescent new moon]. But, since the lunar year consists of only 354 days, eleven less than the solar year, it was necessary from time to time to 'intercalate' a thirteenth month before Passover, to prevent its being moved back into the winter. This intercalary month was a 'second Adar' and was added whenever a consideration of the sun's position [i.e., the vernal equinox], the state of the crops [i.e. the barley, since the wheat wasn't ripe yet], or of the new-born lambs, made it appear necessary."<sup>29</sup>

"The full moon in [the month of] *Nisan* is the first after the vernal equinox and marks the **celebration of Passover**. (emphasis added)<sup>30</sup>

Thus **Passover must be celebrated in the month of *Nisan*, called in the Bible the month of *Abib* (spring), and never before the vernal equinox**.<sup>31</sup> (emphasis added)

Furthermore, according to Eusebius (A.D. 263–339), the early Christian historian and bishop of Caesarea, long before Christ, the Jews anciently (as attested to by Philo, Josephus, Masaeus, the two Agathobuli, and Aaristobulus, who was one of the 70 Jewish scholars who translated the *Septuagint*) sacrificed the Passover lamb **after the vernal equinox**, in the middle of the first month.<sup>32</sup> (emphasis added)

A *careless* reading of the quotations above might cause one to jump to the conclusion that the ancient Jews believed that the beginning of the first month of the biblical calendar had to fall *after* the vernal equinox. But this is not what the Jews of the first century believed or taught, nor is this what these quotes are saying. The historical evidence indicates that the Jews were aware of the vernal equinox when determining the timing of Passover, for all state that Passover (which is at the time of the full moon, which is 14 to 15 days *after* the new moon) *must* fall *after* the vernal equinox. But the vernal equinox was not the main factor in fixing the biblical calendar and determining the dates of the biblical feast! This being true, the Jewish sages make *no* mention that the new moon (*rosh chodesh*) had to fall *after* the vernal equinox, but only that Passover (which occurs at the time of the full moon) had to fall *after* the vernal equinox. Therefore, the ancient Jews did not begin their new year on the first new moon *after*

26. See article entitled, "History of the Calendar" at [www.jewishencyclopedia.com](http://www.jewishencyclopedia.com).

27. *History of Jewish People in the Time of Christ*, first division, vol. 2, p. 366, by Emil Schurer; Hendrickson; 2009

28. *Ibid.*, vol. 2, pp. 370–371, by Emil Schurer; Hendrickson; 2009

29. *The Pharisees*, by Louis Finkelstein, pp. 601–602, Jewish Publication Society, 1938, Philadelphia

30. *Dictionary of Judaism in the Biblical Period*, p. 455, by Jacob Neusner, Hendrickson, 2002

31. *The New Jewish Encyclopedia*, p. 70, Behrman House Publishers, 1976

32. *Ecc. Hist.*, book 7:16–19

the vernal equinox, but rather on the first new moon that fell closest to the vernal equinox, which means the new moon could fall two weeks or more *before* or even slightly after the vernal equinox, just as long as Passover (which was on the fourteenth day of the first month at the time of the full moon) would occur *after* the vernal equinox.

Again, we call your attention to the fact that these scholars state that the Passover (which occurs on the fourteenth day of the first month—a full two weeks after the new moon has been sighted, and two or more weeks after the first *abiv* barley has been found) must fall *after* the vernal (spring) equinox. This does not mean that the *abiv* barley or the beginning of the new month has to fall *after* the vernal equinox, although it can. Only the Passover has to fall after the vernal equinox.

In light of all the that we have examined in both the Scriptures and extra-biblical sources, I can find no evidence whatsoever that the vernal or spring equinox was a determining factor for anything in the biblical calendar. No direct or indirect mention of it is made in the Bible, nor do biblical historians indicate that it was a factor for determining when the new year began and hence when the biblical feasts were calculated during Bible times. Although the vernal equinox occurred at that time of year and was duly noted by the later Jewish sages, it was simply coincidental and ancillary to the indices of the *abiv* barley. Based on my research, I find that the vernal equinox *only* became a major factor in determining the Jewish calendar at the time of Constantine in A.D. 360.

Furthermore, we must add that if it were mandatory for the new moon marking the beginning of the new year to fall *after* the vernal equinox, then this would present an impossible situation for the Israelite farmer as we have already noted. Those whose barley crops ripened early might have to wait a whole month until after the vernal equinox for the new moon to be sighted, then for Passover to come, and the barley wavesheaf offering to occur on First Fruits Day *before* they could legally harvest their crops. As we already noted above, Professor Finklestein eloquently expresses the impossibility of this situation due to the imposition it would have placed on the Israelite farmer who would have been forced to let his barley harvest go to waste (i.e., the barley grains would begin falling to the ground) while waiting weeks before being able to harvest it—a situation which hardly seems tenable!

We can readily see what financial stakes were involved, in consequence of this, in postponement of Passover both for the native grower of barley, who watched his harvest ripen but durst not touch it, and for the importer who was preparing to see the products of neighboring countries, Ammon and Egypt.<sup>33</sup>

Although the Jewish sages viewed the equinox as a factor—a minor one—in determining the biblical calendar, the Scriptures give absolutely *no* indication that the equinox was to play any role in determining YHVH's feasts. What's more, neither do the fruit of the trees, the newborn lambs, nor the three regions mentioned above. To say they do is to read into the Word of Elohim something that is simply *not there!* The Scriptures never even refer to the equinox directly or indirectly! YHVH gave only one determiner of when the new year would begin: the *abiv* barley! In looking to other indicators beside the *abiv* barley, the Jews were *adding* to the Word of Elohim. Yeshua condemned the Jewish leaders of his day for rejecting the Word of Elohim and then adding to or substituting for it the traditions of men (Matt 15:9; Mark 7:9). Let us not be guilty before Yeshua of the same sin!

## Conclusion

As always, the choice is up to the reader whether or not he or she will choose to follow those traditions of men that go contrary to the divinely revealed truth—the Word of Elohim—as revealed in the pages of the Bible.

To the best of my ability, I have endeavored to provide a clear and concise discussion of the biblical calendar, while relying *primarily* on biblical revelation as the foundation for the truth presented.

For those readers who are now convicted that what I have presented here is the truth, and who would like to begin celebrating YHVH's feasts according to the ancient divinely revealed biblical calendar, we would like to make some free resources available to you. You can go to our website ([www.hoshanarabbah.org](http://www.hoshanarabbah.org)) and print monthly calendars that are suitable for pinning up (<http://www.hoshanarabbah.org/calendars.html>). On these calendars, you will find valuable information including the dates for the upcoming biblical festivals, the weekly Torah portion with links to free Torah study guides (<http://www.hoshanarabbah.org/parshiot.html>) and related teaching articles (<http://www.hoshanarabbah.org/teaching.html>).

33. (The Pharisees, pp. 601–602, by Louis Finklestein, professor of theology at Jewish Theological Seminary of America; Jewish Publication Society of America, 1938)

