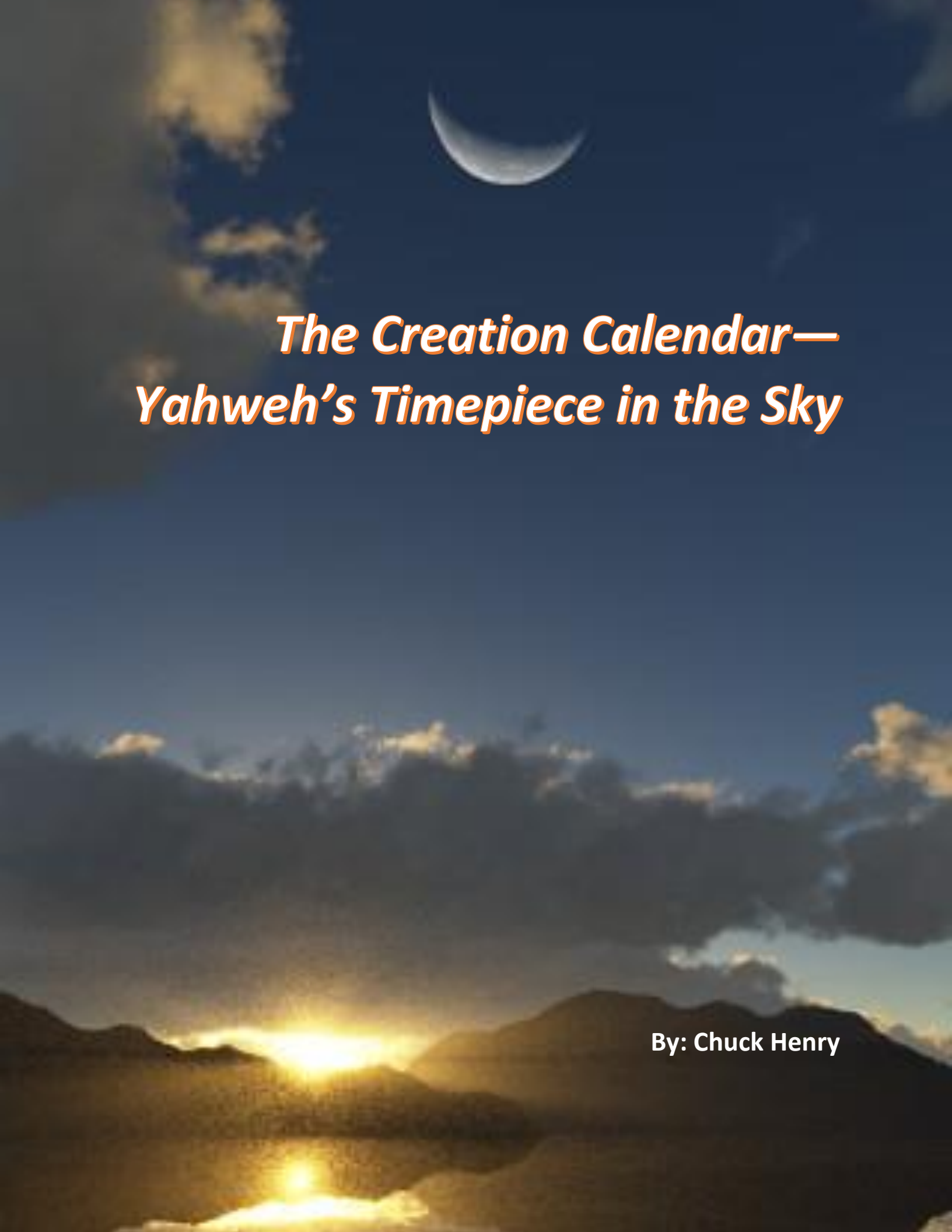

The Creation Calendar— Yahweh's Timepiece in the Sky

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Scripture quotations are from the *New King James Version* (NKJV) unless otherwise noted.

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1. Gen 1:14-19 — Lights for Signs, Seasons, Days, and Years

1.1 *The Creation Calendar*

• Yahweh set His timepiece in the sky during Creation week, which is why it can correctly be called the *Creation Calendar*:

> Gen 1:14-19
> 14 Then Elohim said, Let there be **lights** in the firmament of the heavens to divide the day from the night; and let them be for **signs** [Heb. ***otot***] and **seasons** [***moadim***], and for **days** and **years**;
> 15 and let them be for **lights** in the firmament of the heavens to **give light** on the earth; and it was so.
> 16 Then Elohim made two great lights: the greater light to rule the day, and the lesser light to rule the night. He made the stars also.
> 17 Elohim set them in the firmament of the heavens to **give light** on the earth,
> 18 and to rule over the day and over the night, and to divide the light from the darkness. And Elohim saw that it was good.
> 19 So the evening and the morning were the **fourth day**.

• The lights provide the Scriptural calendar.

• This subject is important because it determines when we celebrate the special days Yahweh placed in His calendar. We do not arbitrarily decide these times; *Yahweh appointed them*.

• Note concerning differences compared to the calendar of Judaism: Sometimes, our feast observances coincide with the same month as the traditional Jewish calendar, and sometimes they do not. Over centuries, changes were made to the Jewish calendar, which resulted in differences between it and the ancient Biblical calendar.

1.2 Lights Provide the Calendar

The lights work harmoniously to provide the Scriptural calendar elements: days, weeks, months, and years.

1.2.1 The Day

The sun produces the day, both the twelve-hour and the twenty-four-hour day. ***The period referred to depends upon the context***.

The 12-Hour Day

> Joh 11:9-10
> 9 Yahshua answered, Are there not twelve hours in the day? If anyone walks in the day, he does not stumble, because he sees the light of this world.
> 10 But if one walks in the night, he stumbles, because the light is not in him.

The **context** in John 11:9 is the *daylight portion* of the full, twenty-four-hour calendar day.

The *Encyclopaedia Judaica* explains that the twenty-four-hour calendar day was divided into twelve hours of day and twelve hours of night, and *the duration of these hours was adjusted as needed throughout the year*:

> ... The day is deemed to begin at sunset or at the end of twilight, and its 24 hours (12 in the day and 12 in the night) are "temporary" hours varying in length with the respective length of the periods of light and darkness.
>
> — "'Calendar," *Encyclopaedia Judaica, Second Edition*. Detroit: Macmillan Reference USA, 2007. Vol. 4, p. 354.

In a different conversation, Yahshua applied the word "today" to the twenty-four-hour calendar day, which includes night:

> Mar 14:30
> Yahshua said to him, Assuredly, I say to you that **today**, even **this night**, before the rooster crows twice, you will deny Me three times.

The 24-Hour Day

Genesis 1 describes the creation days as the evening and the morning six times (vv. 5, 8, 13, 19, 23, 31).

Exodus 10:22 says there was thick darkness in Egypt for three days:

> Exo 10:22
> So Moses stretched out his hand toward heaven, and there was thick **darkness** in all the land of Egypt three **days**.

Thus, darkness was in Egypt during a period that involved **three calendar days of *twenty-four hours each***.

Esther directed her people to fast for three days, which included night and day:

> Est 4:16
> Go, gather all the Jews who are present in Shushan, and fast for me; neither eat nor drink for three **days, night or day**. My maids and I will fast likewise. And so I will go to the king, which is against the law; and if I perish, I perish!

The phrase "for three days, night or day" demonstrates **Esther's understanding that the Scriptural calendar day *includes* night**; thus, this observance was not during the daytime hours only.

1.2.2 The Week

Days produce weeks, a continuously repeating cycle of six workdays followed by the seventh-day Sabbath:

> Gen 2:1-3
> 1 Thus the heavens and the earth, and all the host of them, were finished.
> 2 And on the seventh day Elohim ended His work which He had done, and He rested on the seventh day from all His work which He had done.
> 3 Then Elohim blessed the seventh day and sanctified it, because in it He rested from all His work which Elohim had created and made.

> Exo 20:8-11
> 8 Remember the Sabbath day, to keep it holy.
> 9 Six days you shall labor and do all your work,
> 10 but the seventh day is the Sabbath of Yahweh your Elohim. In it you shall do no work: you, nor your son, nor your daughter, nor your male servant, nor your female servant, nor your cattle, nor your stranger who is within your gates.
> 11 For in six days Yahweh made the heavens and the earth, the sea, and all that is in them, and rested the seventh day. Therefore Yahweh blessed the Sabbath day and hallowed it.

1.2.3 The Month

The moon (which reflects the sun's light) establishes months.

In turn, moons (or months) provide Scriptural festivals:

> Psa 104:19
> He appointed the moon for seasons [*moadim*]; the sun knows its going down.

1.2.4 The Year

The sun cycle provides for years (in concert with the new moon establishing the first month of each year).

1.3 Lights on the 4th Day; Barley on the 3rd Day

• The Creator, Yahweh, established the lights "for signs and seasons, and for days and years" on the **fourth day** of creation (Gen 1:14-19).

• Vegetation, including **barley**, had already been created on the **third day** and was ***not*** specified for signs, seasons, days, and years (see Gen 1:9-13):

> Gen 1:9-13
> 9 Then Elohim said, Let the waters under the heavens be gathered together into one place, and let the dry land appear; and it was so.
> 10 And Elohim called the dry land Earth, and the gathering together of the waters He called Seas. And Elohim saw that it was good.
> 11 Then Elohim said, Let the earth bring forth grass, the herb that yields seed, and the fruit tree that yields fruit according to its kind, whose seed is in itself, on the earth; and it was so.
> 12 And the earth brought forth grass, the herb that yields seed according to its kind, and the tree that yields fruit, whose seed is in itself according to its kind. And Elohim saw that it was good.
> 13 So the evening and the morning were the **third day**.

• **Fact:** Genesis 1:14 states that the **lights** are "…for **signs** and **seasons**, and for **days** and **years**," but *not a single verse in the Bible says this about barley*.

1.4 "Signs" (v. 14) = Visible Signals

• Translated from the word ***otot*** in the Hebrew text.

• Signs are ***visible*** signals; *otot* is the plural of *Strong's Dictionary* H226: "…(in the sense of *appearing*); a *signal*…"

• Verses 15 and 17 state that the lights are "to **give light** on the earth," confirming that these signs are ***visible***.

• For example, compare a sign indicating a sharp turn on the road: this sign is ***visible*** and warns the driver to slow down. **The *lack* of a visible sign is not a sign**.

1.5 "Seasons" (v. 14)

• Translated from the Hebrew word ***moadim***.

• Seasons are appointments, fixed times, seasons, festivals, etc. *Moadim* is the plural of *moed* (*Strong's Dictionary* H4150).

• Compare Leviticus 23:4, which harmonizes with Genesis 1:14 —

Gen 1:14	**Lev 23:4**
Then Elohim said, Let there be lights in the firmament of the heavens to divide the day from the night; and let them be for signs and **seasons [*moadim*, pl. of *moed*]**, and for days and years.	These are the feasts of Yahweh, holy convocations which you shall proclaim at their **appointed times [*moada*, also derived from the word *moed*]**.

• Yahweh's feast days are proclaimed "at their **appointed times**."

• ***These appointed times are governed by the lights as prescribed in Genesis 1:14***.

Notes regarding research in *Strong's Exhaustive Concordance*

Strong's dictionary shows the singular form of the Hebrew word *moed* (מועד) and *moada*, both under H4150. The plural form, *moadim*, appears in the actual Hebrew text of Genesis 1:14. The additions of the Hebrew letters *Yod* (י) and *Final Mem* (ם) attached

to the end of the word make the plural form *moadim* (מועדים). Note: Hebrew is read from right to left.

A similar situation occurs with the word "signs," translated from the Hebrew word *otot* (H226). In this case, the "-ot" ending makes the plural form *otot*, but *Strong's* dictionary lists only the singular form of the word.

1.6 Light and the Spring Equinox

• ***Light*** provided by the sun provides the marker for spring in the form of the spring (or vernal) equinox.

• When the sun passes over the earth's equator, this completes one **circuit** of the sun and begins the next.

• **To avoid beginning the first month of the year in the winter**, we wait for the spring equinox and start the first month of the year with the next new moon.

• More information on the equinox follows shortly.

1.7 What about the need for ripe barley?

A question that may arise is:

> "But if the month of Abib is a month of ripe, harvest-ready barley, doesn't barley figure into the picture somewhere?"

• Yes, ripe, *harvest-ready* barley naturally occurs with the new moon after the spring equinox (barring extreme conditions such as flood, drought, etc.).

• Interestingly, during such severe conditions, the lights *still* produce the Scriptural year, which is *impossible* to determine by *non-existent* barley.

1.8 Even Barley Calendar Projections Recognize the Equinox

• Interestingly, even Barley Method followers recognize the equinox when making their calendars, including feast dates for the coming year.

• They know that if the new moon before the spring equinox is too early (i.e., there is too much time before the equinox), they are not likely to find "green ears" of barley of sufficient maturity.

2. Equinoxes are *Not* Pagan

2.1 The Guilt by Association Argument

The Guilt by Association Argument ***associates*** **the equinox with paganism**, thus leading to the *unfounded assertion* that recognizing the equinox in calendar reckoning must also be a pagan practice.

In Response:

• The equinox ***originated*** in Yahweh's creation *before* pagan abuse.

• *Pagan abuse does not nullify Yahweh's creation*.

• Yahweh warned against worshiping the objects He created:

> Deu 4:19
> And take heed, lest you lift your eyes to heaven, and when you see the sun, the moon, and the stars, all the host of heaven, you feel driven to worship them and serve them, which Yahweh your Elohim has given to all the peoples under the whole heaven as a heritage.

• Sadly, people violated these instructions:

> Jer 19:13
> And the houses of Jerusalem and the houses of the kings of Judah shall be defiled like the place of Tophet, because of all the houses on whose roofs they have burned incense to all the host of heaven, and poured out drink offerings to other elohim.

• Even so, *observing* the lights, which Yahweh created, does not endorse *worshiping* these objects.

• Additionally, for those who ignore the equinox because they think it is pagan, have they considered that **pagans also worshiped Ceres, the Roman goddess of *grain* crops, such as barley?**

• As you can see, these "guilt by association" arguments do not work:

  • Barley is part of Yahweh's creation regardless of whether pagans adopted it into their worship.

  • Likewise, the equinox is part of Yahweh's creation regardless of whether pagans adopted it into their worship.

• Ironically, those who sometimes reckon the new moon *before* the equinox as the beginning of the year will sometimes hold their Passover worship ***on* the equinox**. Conversely, Passover worship *on* the equinox will *never* occur for those who reckon the beginning of the year with the first new moon *after* the equinox.

2.2 The Easter Argument

• The Easter Argument makes the factual statement that the Council of Nicaea, in 325 CE, used the vernal equinox in their formula for setting Easter Sunday.

• The assertion follows that since Easter is pagan, the equinox is also pagan!

In Response:

• Recall that the vernal equinox existed *long before* the Council of Nicaea in 325 CE; Yahweh's designed it into His creation.

• Therefore, discrediting the equinox by associating it with the formula for determining Easter Sunday fails the test and can forever be laid to rest.

• For the record, the Council of Nicaea's method for determining Easter Sunday does not reckon the year with the new moon *after* the vernal equinox.

• Confirming this fact, Easter Sunday sometimes falls *before* the new moon after the equinox (as it did in 2021, for example).

• Ironically, during the years when Easter Sunday falls before the new moon after the equinox, the Easter formula aligns with the *Barley Method* of determining the first month of the year.

3. Equinoxes are *Not* "Man-Made"

Some allege that equinoxes are "**man-made**."

In Response:

• Equinoxes are not man-made; instead, they are ***beyond man's control***.

• Equinoxes occur **when the sun passes over the earth's equator** each spring and fall.

• **Consequently, man does not *set* the equinox; he *observes* it**.

• **Yahweh *sets* the equinox** by the action of the sun, *which He created*, coursing through its circuit relative to the earth, *which He also created*.

• Certainly, **these heavenly marvels are not man-made**; instead, *they are the handiwork of Yahweh* (cp. Psa 19:1) —

> Psa 19:1
> The heavens declare the glory of El; and the firmament shows His handiwork.

4. Equinoxes have been Observable from Ancient Times

• Equinoxes are the only two days of the year when the sun rises due east and sets due west *everywhere on Earth*.

• Equinoxes are also the only days of the year when a person standing on the equator sees the sun pass *directly overhead*.

• Various methods have been used to observe the equinox, such as building a structure where the sun shines directly into an opening only on the day of the equinox.

• Voy Wilks observed the equinox from his own garage:

He drilled a hole in the east wall of his garage, through which the rising sun shined. Consequently, the garage's interior west wall reflected the sun with a dot of light. As the sun moved in the sky, the dot on the wall moved correspondingly. In turn, Voy marked the wall following the dot. Some of Voy's comments:

> I have enjoyed my simple, home experiments in locating the equinoxes. This experiment locates both the spring and fall equinoxes.
>
> — "What? Our Calendar Wrong?" Paper Voy Wilks, 1/25/89, p. 3.

5. Equinox Dates Vary from March 19-21 (not always the 21st)

• **March 21st** is commonly claimed as the date of the spring equinox.

• Actually, the spring equinox can fall on March 19, 20, or 21. The website TimeAndDate.com states:

> Many cultures claim March 21 as the date of the March equinox. In reality, the equinox can happen on March 19, 20, or 21.
>
> — Kher, Aparna, "Why Does the March Equinox Fall on Different Dates?"
> URL (accessed 2/14/2021):
> https://www.timeanddate.com/calendar/varying-march-equinox-date.html

Notes about Converting UTC to Local Time

TimeAndDate.com expresses the time at which the equinox occurs in UTC [Universal Time Coordinated or Coordinated Universal Time, formerly Greenwich Mean Time (GMT)].

Converting UTC to times in other time zones *sometimes* causes the *local* date to differ, depending on whether UTC converts to a local time before or after midnight as compared to UTC. The *local* date can be a day earlier in locations behind UTC, such as the USA, or a day later in locations ahead of UTC.

This difference does not mean that a given equinox occurs more than once; instead, it is simply a matter of expressing the equinox's time in different time zones.

• The vernal equinox falls consistently within the range of March 19-21 because our modern Gregorian calendar is closely synchronized with the solar year (within one day every four years).

• Earth takes about 365 and ¼ days to orbit the sun. That extra ¼ day per year requires an extra calendar day every four years (February 29th) to keep the calendar aligned with the solar year. Otherwise, calendar months would slowly drift back through the seasons as lost time accumulated.

• Interestingly, that additional ¼-day per year also causes the equinox to occur around six hours *later* (or ¼ day) each year. Then, the added day during a leap year causes the equinox to move back a day *earlier*, and the process repeats.

• Again, the spring equinox does not always fall on March 21st. In 2016, for example, the spring equinox fell on March 19th.

• **The Takeaway:** Don't be fooled by the common claim that March 21st is the date of the spring equinox.

6. Equinoxes are Not Equal Day and Night; instead, *Equilux* is

Because the vernal equinox occurs *on or about* March 21st each year, and because this is ***not*** a time of *exactly* equal day and night, some assert that this is not the *true* equinox and that *man* set this time.

In Response:

• A common misunderstanding is that day and night are *exactly* equal at the time of the equinox (although they are *close* to equal, they are not *exactly* equal). The website TimeAndDate.com explains:

> *Equinox* in Latin means equal night, giving the impression that the night and day on the equinox are exactly 12 hours long. And even though this is common wisdom, it isn't entirely accurate.
>
> — Kher, Aparna, "Equinox: Almost Equal Day and Night." URL (accessed 2/13/2021): https://www.timeanddate.com/astronomy/equinox-not-equal.html

• EarthSky.org states that a different word, ***equilux***, describes "when day and night are, in fact, equal."

— URL (accessed 2/22/2021): https://earthsky.org/astronomy-essentials/why-arent-day-and-night-equal-on-the-day-of-the-equinox

• The TimeAndDate.com article also contains a table, which demonstrates that ***equal day and night can vary by several days*** depending on location. A copy of this table appears on the next page.

Approx. date of "Equal Day & Night"

Latitude	March	September
60° North	Mar 18	Sep 25
55° North	Mar 17	Sep 25
50° North	Mar 17	Sep 25
45° North	Mar 17	Sep 25
40° North	Mar 17	Sep 26
35° North	Mar 16	Sep 26
30° North	Mar 16	Sep 27
25° North	Mar 15	Sep 27
20° North	Mar 14	Sep 28
15° North	Mar 12	Sep 30
10° North	Mar 8	Oct 4
5° North	Feb 24	Oct 17
Equator	No equal day and night	
5° South	Apr 14	Aug 29
10° South	Apr 1	Sep 10
15° South	Mar 28	Sep 14
20° South	Mar 26	Sep 16
25° South	Mar 25	Sep 17
30° South	Mar 24	Sep 18
35° South	Mar 24	Sep 19
40° South	Mar 23	Sep 19
45° South	Mar 23	Sep 19
50° South	Mar 23	Sep 20
55° South	Mar 23	Sep 20
60° South	Mar 22	Sep 20

• Even at the equator, as noted in the table above, day and night are not exactly the same length on the equinox. However, day and night are *nearly* the same length ***all year*** at the equator.

• Factors such as the size of the sun and the refraction (or bending) of sunlight through the earth's atmosphere combine to make the day slightly longer than the night at equinox.

• Moreover, the term from Hebrew Scripture, ***tekufah*** (H8622), also does not mean "equal night." Instead, it refers to the ***course*** or ***circuit*** of the sun as seen from the earth.

7. Equinox and *Tekufah*

One of the issues related to this discussion is whether the Hebrew word *tekufah* used in Scripture refers to the equinox.

7.1 *Tekufah* Defined

Tekufah refers to the ***course*** or ***circuit*** of the sun as seen from the earth as shown in *Strong's* dictionary:

> **H8622:** *tequwphah***,** from **5362**; a *revolution*, i.e. (of the sun) *course*, (of time) *lapse*:- circuit, come about, end.

7.2 *Tekufah* is used Four Times in the Bible

1) **Exo 34:22** (used to refer to the end of the harvest or agricultural year)
   And you shall observe the Feast of Weeks, of the firstfruits of wheat harvest, and the Feast of Ingathering at the year's **end [*tekufah*]**.

2) **1 Sam 1:20** (used to refer to the human gestational period)
   So it came to pass in the **process of time** [KJV: "when the time was **come about**" **(*tekufah*)**] that Hannah conceived and bore a son, and called his name Samuel, saying, Because I have asked for him from Yahweh.

3) **2 Chr 24:23** (used to refer to the calendar year)
   So it happened in the **spring** [KJV: "at the **end**" **(*tekufah*)**] of the year that the army of Syria came up against him; and they came to Judah and Jerusalem, and destroyed all the leaders of the people from among the people, and sent all their spoil to the king of Damascus.

4) **Psa 19:6** (used to refer to the circuit of the sun)
   Its rising is from one end of heaven, and its **circuit [*tekufah*]** to the other end; and there is nothing hidden from its heat.

Thus:

- *Tekufah* is used to refer to the calendar year in 2 Chronicles 24:23.

- Psalm 19:6 uses *tekufah* to refer specifically to the **circuit** of the sun.

- In a general sense, *tekufah* can refer to periods of time; for example, in 1 Samuel 1:20, the period between Samuel's conception and birth, and in Exodus 34:22, the end of the harvest or agricultural year.

7.3 *Tekufot* — the Plural Form of *Tekufah*

The connection between *tekufah* and equinox is also seen in its plural form, *tekufot*. The *Encyclopedia Judaica* states:

> **Tekufot**
> As stated, the four seasons in the Jewish year are called *tekufot*. More accurately, it is the beginning of each of the four seasons … that is named *tekufah* (literally "circuit"…), the *tekufah* of Nisan denoting the mean sun at the vernal equinoctial point, that of Tammuz denoting it at the summer solstitial point, that of Tishri, at the autumnal equinoctial point, and that of Tevet, at the winter solstitial point.
>
> — "Calendar," *Encyclopaedia Judaica, Second Edition*. Detroit: Macmillan Reference USA, 2007. Vol. 4, p. 356.

7.4 Historical Documentation

The Jewish Encyclopedia, article "Calendar, History of":

> The history of the Jewish calendar may be divided into three periods—the Biblical, the Talmudic [c. 70-640 CE], and the post-Talmudic. The first [i.e., the Biblical period] rested purely on the observation of the sun and the moon, the second on observation and reckoning, the third entirely on reckoning.

— "Calendar, History of," *The Jewish Encyclopedia*. 1906, p. 498. [Bracketed notations mine.]
— URL (accessed 3/5/2021): https://jewishencyclopedia.com/articles/3920-calendar-history-of

The *Encyclopaedia of Religion and Ethics*, article "Calendar (Jewish)," pp. 121-122:

> The term *tequfa* ('course of the sun') signifies the moment at which the sun arrives at the equinoctial or solstitial point … It was regarded as a matter of special importance that the month of Nisan should not begin before its *tequfa* (beginning of spring), and a second Adar was intercalated as required…

The *International Standard Bible Encyclopedia* (ISBE), article "Calendar":

> In the first period [i.e., the Biblical period] the priests determined the beginning of each month by the appearance of the new moon and the recurrence of the prescribed feasts from the vernal and autumnal equinoxes.
>
> — "Calendar," *International Standard Bible Encyclopedia*. Accessed via *Logos Bible Software*.

7.5 Equinox and *Tekufah* Review

Biblical, linguistic, and historical evidence confirms the connection between equinox, *tekufah*, and the turn of the year.

8. Review of the Creation Calendar

• Genesis 1:14 states that the **lights** are "…for **signs** and **seasons**, and for **days** and **years**," but *not a single verse in the Bible says this about barley*.

• **Light** provided by the sun provides the marker for spring in the form of the spring (or vernal) equinox.

• When the sun passes over the earth's equator, this completes one **circuit** and begins the next.

• **To avoid beginning the first month of the year in the winter**, we wait for the spring equinox and start the first month of the year with the next new moon.

• Ripe, ***harvest-ready* barley** naturally occurs with the new moon after the spring equinox, barring extreme conditions such as flood, drought, etc., in which case the Scriptural year still occurs as determined by the lights.

• Yahweh designed the equinox into His creation; **pagan abuse does not nullify it**.

• Equinoxes are not "**man-made**."

• Equinoxes have been **observable** from ancient times.

• **Equinox dates vary**. Although March 21st is commonly stated as the day on which the spring equinox occurs, it can fall in the range of the 19th–21st.

• Equinoxes are **not equal day and night**.

• **Biblical, historical, and linguistic** evidence confirms the connection between equinox, *tekufah*, and the turn of the year.

9. Deu 16:1 — "Observe the month of Abib…"

9.1 Overview of Deu 16:1

> Deu 16:1
> **Observe [*shamar* (H8104)]** the **month [*chodesh* (H2320)]** of **Abib [*abib* (H24)] [Heb. *chodesh ha aviv*, or month of the *aviv*]**, and keep the Passover to Yahweh your Elohim, for in the month of Abib Yahweh your Elohim brought you out of Egypt by night.

- *Fresh, ripe barley naturally occurs* when establishing the first month of the year with the new moon *after* the equinox.

- Therefore, whether this verse means to observe the *new moon* of Abib, or whether it means, in context, to observe *the month* by *keeping* the sacred appointments it contains (such as Passover, which the verse mentions and which does not occur until the *middle* of the month), neither are problematical for the Equinox Method.

9.2 Additional Evidence for Observing the Month

Additional evidence suggests this verse may *specifically* refer to observing ***the month*** by *keeping* the sacred appointments it contains.

9.3 "Observe" (*shamar* H8104)

One of the meanings of *shamar* is to observe in the sense of *keeping*, and it is translated this way hundreds of times.

Examples:

> Deu 5:12, 29
> 12 **Observe [*shamar* (KJV: "Keep")]** the Sabbath day, to keep it holy, as Yahweh your Elohim commanded you.

> 29 Oh, that they had such a heart in them that they would fear Me and always **keep [*shamar*]** all My commandments, that it might be well with them and with their children forever!

9.4 Context

The verse says to "keep the Passover." Passover occurs in the ***middle*** of the month.

The verse also refers to Yahweh delivering Israel from Egypt, "for in the month of Abib Yahweh your Elohim brought you out of Egypt by night." We are to remember this event, and it also occurred in the ***middle*** of the month.

9.5 *Chodesh* can mean "new moon" or "month"

The *Septuagint* translation of *chodesh* in Deuteronomy 16:1 indicates that it means "month."

The *Septuagint*, also known as the LXX because of the approximate seventy scholars who worked on it, is a translation of the Hebrew Scriptures into Greek done by ancient Hebrew scholars around 250 BCE.

In Greek, there are different words for "month" and "new moon":

- *noumenia* (new moon; G3561)
- *men* (month; G3376)

In Deuteronomy 16:1, it is noteworthy that the Septuagint translators chose to use the Greek word for month (*men*) and not the Greek word for new moon (*noumenia*). This evidence shows that the understanding of the ancient Hebrew scholars who translated the Septuagint for their Greek-speaking audience was that *chodesh* in Deuteronomy 16:1 referred to the "*month*," not specifically to the "new moon."

10. Barley — "Green Ears"? What is *Abib* Grain?

Strong's definition of Abib:

> **Abib: 24. 'abiyb**, aw-beeb'; from an unused root (meaning to be tender); green, i.e. a young ear of grain; hence the name of the month Abib or Nisan:--Abib, ear, green ears of corn.

Researching the definition further, we find evidence that abib refers to grain that *already ripe*.

Theological Wordbook of the Old Testament:

> 'abib. *Barley*. This noun refers to barley that is already ripe, but still soft, the grains of which are eaten either rubbed or roasted.
>
> — *Theological Wordbook of the Old Testament* (accessed with PC Study Bible software). Copyright 1980 by The Moody Bible Institute of Chicago.

We often refer to something as "green" when it is not yet ripe; but *abib* indicates harvest-ready, ripe barley:

Compare:

> Lev 23:14
> You shall eat neither bread nor parched grain [KJV: "parched corn" – Old English usage referring to the heads of grain of the barley] nor **fresh grain [KJV: "green ears"]** until the same day that you have brought an offering to your Elohim; it shall be a statute forever throughout your generations in all your dwellings.

The offering in this verse refers to the Wave Sheaf offered during the month of *Abib*. New grain was not to be partaken of in *any* form until the Wave Sheaf was offered.

In this verse, "green ears" is translated from a different Hebrew word, *karmel* (H3759).

> ***Strong's* 3759. karmel**, kar-mel'; from 3754; a planted field (garden, orchard, vineyard or park); by impl. garden produce:--full (green) ears (of corn), fruitful field (place), plentiful (field).

Karmel, along with the additional context found in this verse, offers additional insight on the state of the barley in terms of its ripeness. The grain is in a state of freshness, or ripeness, which is ***ready to be harvested***:

- ☑ It might be ground into flour and made into bread
- ☑ Parched
- ☑ Or, eaten fresh

Note that the context does not describe an "*aviv* search"; instead, it refers to crops ready to harvest.

Leviticus 2:14 provides further evidence that *abib* grain is harvest-ready. It gives the regulations for bringing a grain offering of firstfruits unto Yahweh—

> Lev 2:14 (KJV)
> And if thou offer a meat offering of thy firstfruits unto Yahweh, thou shalt offer for the meat offering of thy firstfruits green ears of corn [*abib* (H24)] dried by the fire, even corn beaten out of full ears.

This describes *abib* as grain that is mature enough to have heads of grain that can be beaten out of the ears.

Green's Interlinear states "fresh ears."

Voy Wilks described barley growth in his paper entitled "Green Ears" (5/23/1994):

What constitutes a "green ear?" Once small grains (barley, wheat & rye) send up shoots (stalks), very soon they produce what appears to be heads of grain (green ears). However, this is only the shuck (the "housing") in which the kernels of grain will eventually form. These heads even have the long beard on them from the very first. But this is approximately 30 to 45 days before mature kernels of grain appear within the head.

A few days after the green heads appear, tiny yellow blooms appear. Only after the plant blooms does the fertilized flower produce the grains within the head. At first there is only milk within the kernels. Slowly this milk hardens into grains (kernels). Eventually it becomes hard, gradually losing most of its moisture content.

By the time the moisture content has dropped to about 20%, the stalks have begun to turn golden in color and can be harvested by hand. Machine harvesting requires waiting for lower moisture content. To thrash and grind into flower requires a moisture content of 15% or less.

According to Alfred Edersheim, after thrashing, the priests sometimes dried the grains by parching them over a fire, thus making it possible to grind it into flour. [*The Temple: Its Ministry & Service*, by Alfred Edersheim, Eerdmans Publishing Company, 1990, pp. 256-259.]

Obviously, the kernels had to be present before this could happen. It is possible that some have, in good conscience, reported "green ears" in early March in Israel, when the ears were so immature that no kernels of grain were in them. As noted above, at least 30 to 45 days are required from the time the "heads" first appear until firm grain is present in the heads.

Additionally, the book of Joshua also indicates that the fields were in harvestable condition by the time of Abib 10 —

> Jos 4:19
> Now the people came up from the Jordan on the tenth day of the first month, and they camped in Gilgal on the east border of Jericho.
>
> Jos 3:14-16
> 14 So it was, when the people set out from their camp to cross over the Jordan, with the priests bearing the ark of the covenant before the people,
> 15 and as those who bore the ark came to the Jordan, and the feet of the priests who bore the ark dipped in the edge of the water (for the Jordan overflows all its banks during the whole time of harvest),
> 16 that the waters which came down from upstream stood still, and rose in a heap very far away at Adam, the city that is beside Zaretan. So the waters that went down into the Sea of the Arabah, the Salt Sea, failed, and were cut off; and the people crossed over opposite Jericho.

- The Feast of Unleavened Bread is a *harvest* feast.
- Barley is the harvest crop at that time of year.
- The issue is not about going out on an "Abib Search" to see if one can spot any "green ears" of barley somewhere across the landscape.
- Instead, the issue is that *the barley crop is ready for harvesting*.

11. Barley — Harvest Prediction Problems

11.1 The Barley Method and Barley Maturity Evaluation

The Barley Method relies upon evaluating the maturity level of the barley in Israel.

Barley that is reckoned to be in the "*aviv*" state must be ripe enough to harvest.

Additionally, there must be enough ripe barley for the Wave Sheaf offering during the Feast of Unleavened Bread about two weeks after the month begins (Lev 23:9-14).

If enough barley is reckoned to be in the "*aviv*" state or if it is *predicted* that there will be enough in the "*aviv*" state within two weeks of the new moon, the next month is declared *Aviv*.

11.2 Scripture Contains No Regulations for Determining Barley Maturity

● Scripture contains **no regulations** for determining barley maturity to predict its readiness for harvest within the two weeks leading up to the Wave Sheaf.

- Nowhere does Scripture describe an "***aviv* search**."
- Leading up to a possible *Aviv* 1, who was to make the **final determination** of how "ripe" was *ripe enough*?
- Scripture provides **no instructions to anyone**, whether it be the High Priest, the Elders, or others about making such a determination.
- Exactly **what criteria** are used in a borderline situation? Percentage of moisture, color, or other properties? Scripture is silent concerning using such parameters and making a prediction based upon them.

- Moreover, what will the weather be like during the intervening days? Will it be cool and rainy or warm and sunny?

- On the other hand, it is simple to "go toward the lights," wait for the equinox, and then wait for the next new moon to begin the first month of the year in-season. *No prediction methods required*.

11.3 Devorah Gordon's Admissions about Predicting Barley Ripeness

Devorah Gordon, who promotes the Barley Method, shared her own admissions about the difficulties involved with predicting barley ripeness in her emailed "2019 Aviv Report (6 March 2019)":

> Now, let me try and preempt a question which I expect to get, which is when do I think a significant amount of this year's barley crop will be Aviv. It is very hard to predict such a thing in general and particularly this month as the state of the barley is currently quite immature, and forecasts expect more cool weather and rain over the next couple of weeks in these areas.

12. Equinox — "Doing Something" — Argument Answered

The concern has been raised that we always seem to have to "do" something in observance of Yahweh's instructions for living. The assertion continues that with the equinox (at least in today's day and age), there is nothing we need to "do."

Response

Each year, those who follow the Equinox Method "do" the following:

- *Check* the date of the vernal equinox as an indicator in determining the Scriptural year and *wait* for it to occur.
- We then *wait* for the *sighting* of the visible new moon.
- Fresh, ripe, *harvest-ready* barley naturally occurs with this reckoning.

13. Equinox in Relation to Harvest

A ***harvest*** is involved with each of the three major festivals:

Unleavened Bread — barley harvest

> Lev 23:9-14 (Unleavened Bread – Barley harvest)
> 9 And Yahweh spoke to Moses, saying,
> 10 Speak to the children of Israel, and say to them: When you come into the land which I give to you, and **reap its harvest**, then you shall bring a sheaf of the firstfruits of your **harvest** to the priest.
> 11 He shall wave the sheaf before Yahweh, to be accepted on your behalf; on the day after the Sabbath the priest shall wave it.
> 12 And you shall offer on that day, when you wave the sheaf, a male lamb of the first year, without blemish, as a burnt offering to Yahweh.
> 13 Its grain offering shall be two-tenths of an ephah of fine flour mixed with oil, an offering made by fire to Yahweh, for a sweet aroma; and its drink offering shall be of wine, one-fourth of a hin.
> 14 You shall eat neither bread nor parched grain nor fresh grain until the same day that you have brought an offering to your Elohim; it shall be a statute forever throughout your generations in all your dwellings.

Shavuot **(Pentecost) — wheat harvest**
Tabernacles (also called Ingathering) — observed *after* the crops are gathered in

> Exo 23:16
> And the Feast of **Harvest** [i.e., Pentecost], the firstfruits of your labors which you have sown in the field; and the Feast of **Ingathering** [i.e., Tabernacles] at the end of the year, **when you have gathered in** the fruit of your labors from the field.

> Exo 34:22
> And you shall observe the Feast of Weeks [i.e., Pentecost], of the

> firstfruits of wheat **harvest**, and the Feast of **Ingathering** at the year's **end [*tekufah*]**.

● Scripture specifies that Tabernacles falls in the **seventh month** of the Scriptural calendar year; therefore, "at the year's end" cannot refer to the end of the Scriptural calendar year, which does not occur until the following spring.

● To what, then, does "at the year's end" refer?

● Tabernacles falls after a circuit of time (*tekufah*) marked by the fall equinox.

● This timing coincides with *the* ***end of the year's harvest***.

● Moreover, the **tithe** from the harvest was to be brought to the Feast of Tabernacles; therefore, ***beginning the feast in the middle of the harvest is problematic*** (Deu 14:22-25).

> Deu 14:22-25
> 22 You shall truly tithe all the increase of your grain that the field produces year by year.
> 23 And you shall eat before Yahweh your Elohim, in the place where He chooses to make His name abide, the tithe of your grain and your new wine and your oil, of the firstborn of your herds and your flocks, that you may learn to fear Yahweh your Elohim always.
> 24 But if the journey is too long for you, so that you are not able to carry the tithe, or if the place where Yahweh your Elohim chooses to put His name is too far from you, when Yahweh your Elohim has blessed you,
> 25 then you shall exchange it for money, take the money in your hand, and go to the place which Yahweh your Elohim chooses.

● Beginning the year with the first new moon *after* the spring equinox results in the feasts of Unleavened Bread and Tabernacles *always falling completely in season*.

● Contrast this with the circumstances which occurred in 2019. Beginning the year with the new moon of 3/7/2019, which was **closer to the equinox by one day** than the 4/6/2019 new moon, caused the *entire* Feast of Tabernacles (9/15—9/22) to occur *before* the fall equinox, which was on 9/23/2019.

14. Equinox — The Patriarchs and Astronomy

14.1 Abram

The first-century Jewish historian, Josephus (37 – 100 CE), records that Abram taught the science of astronomy to the Egyptians in *Antiquities* Book 1, Chapter 8, Section 2 (quoted below). Therefore, it is reasonable that Abram knew about the equinox.

To add context, here is the heading information in Chapter 8:

> Chapter 8 - That When There Was A Famine In Canaan, Abram Went Thence Into Egypt; And After He Had Continued There A While He Returned Back Again

Antiquities 1.8.2

> 2. For whereas the Egyptians were formerly addicted to different customs, and despised one another's sacred and accustomed rites, and were very angry one with another on that account, Abram conferred with each of them, and, confuting the reasonings they made use of, every one for their own practices, demonstrated that such reasonings were vain and void of truth: whereupon he was admired by them in those conferences as a very wise man, and one of great sagacity, when he discoursed on any subject he undertook; and this not only in understanding it, but in persuading other men also to assent to him. He communicated to them arithmetic, and delivered to them the science of astronomy; for before Abram came into Egypt they were unacquainted with those parts of learning; for that science came from the Chaldeans into Egypt, and from thence to the Greeks also.
>
> — Josephus: *Antiquities of the Jews*, PC Study Bible formatted electronic database, Copyright © 2003 by Biblesoft, Inc.

14.2 Moses

After considering the information above indicating that Abram taught the science of astronomy to the Egyptians, also consider that Moses was learned in all the wisdom of the Egyptians—

> Acts 7:22
> And Moses was learned in all the wisdom of the Egyptians, and was mighty in words and deeds.

15. New Moon *Nearest* the Equinox (*?*)

In an article entitled *Israel's Calendar*, Voy Wilks explains—

> If we hope to choose the new moon **nearest** (either before or after) the equinox, we may fail because of the uncertainty in the length of the lunar month. Suppose we choose a new moon 15 days before the vernal equinox on the assumption the month will have 30 days, but suppose it turns out to have only 29 days. We will not have chosen the new moon **nearest** the equinox, as there are 15 days before but only 14 days after. Once again, we must wait until the equinox is established, and only then choose a new moon – the new moon next after that event.
>
> — Wilks, Voy, *Israel's Calendar*, 7/1/1988, pg. 9.

● Beginning the year with the first new moon *after* the spring equinox results in the feasts of Unleavened Bread and Tabernacles *always falling completely in season*. Additionally, there is more time to harvest and gather the produce, including the tithe, as compared to a month earlier.

● Contrast this with the circumstances which occurred in 2019. Beginning the year with the new moon of 3/7/2019, which was **closer to the equinox by one day** than the 4/6/2019 new moon, caused the *entire* Feast of Tabernacles (9/15—9/22) to occur *before* the fall equinox, which was on 9/23/2019.

● Moreover, even with the spring equinox passed, we are still in a *winter month* until the next new moon following the equinox.

16. *Rosh Hashanah* — A New Year in the Seventh Month (*?*)

Judaism recognizes a "civil" year beginning on the first day of the seventh month. This reckoning has caused some calendar confusion because it is impossible for the *same* year to begin in the first month and begin *again* in the seventh month.

Judaism calls this day *Rosh Hashanah* (or head of the year), but ***it has no basis in Scripture***.

The *Pictorial Bible Dictionary's* article, "Calendar," explains:

> The Jewish calendar contained two concurrent years, the sacred year, beginning in the spring with the month Nisan, and the civil year, beginning in the fall with Tishri.
>
> — "Calendar," *Pictorial Bible Dictionary*. Nashville: The Southwestern Co, 1968. p. 140.

17. Spiritual Comparisons — Argument Answered

Spiritual comparisons are sometimes used as an attempt to gain the upper hand in an argument. One such spiritual comparison is the claim that if we wait until the new moon *after* the equinox, we may miss the Messiah's presence in some years.

However, one could just as easily suggest that rather than rush things, we should show **the fruit of the spirit**, including *patience*, and *wait* until the proper timing.

18. The Thirteenth Month

Question: Why should we recognize an occasional thirteenth month in the Scriptural calendar since Scripture does not mention it?

Answer:

True, the Bible does not explicitly mention the thirteenth month. However, Yahweh set lights in the sky (Gen 1:14) to determine years, which in turn determines when to begin the first month of the year, and thereby also *provisions the thirteenth month when necessary*.

It is a **fact of Creation** that the Scriptural calendar periodically requires the thirteenth month to keep the calendar months aligned with the year.

Without an occasional thirteenth month, months would gradually creep back through the seasons, causing Scriptural festivals to occur out of season. For example, within about nine years, Passover could fall in January! Let us investigate why.

The moon requires about **29.5 days** to orbit the earth. Multiplying 29.5 x 12 months results in **354 days** (called a *lunar year*). However, it takes Earth about **365 days** to complete its orbit around the sun (called a *solar year*); thus, the lunar year is about **11 days short** of the solar year. This **11-day difference** is why a thirteenth month is necessary about once every three years (11 days x 3 years = 33 days, or roughly one month's worth of days).

By the way, our modern calendar has a similar alignment mechanism in the form of February 29th during leap years. The solar year is 365.25 days. Multiplying .25 days x 4 years results in = 1 day, which means an extra day is needed once every four years* to keep the months in our calendar aligned with the year. (*Except for years which are both divisible by 100 and not divisible by 400 — which is a further fine-tuning effort).