

## Evidence Against The Spring Passover Rule

## Evidence For The Observed Calendar Rules Of The Second Temple

### Summary:

Contrary to what has been taught and printed in the past, the ancient astronomy scholars of Israel's Second Temple Era did not use the "Spring Passover Rule". Herein is the astronomical data which confirms this statement. This paper is a "must-read" for everyone interested in debating the calendar issues.

The "Spring Passover Rule" asserts that the first month of a year may begin with the visual crescent closest to the spring equinox, as long as the Passover (the evening as Nisan 15 begins) occurs in the spring.

Over the last 30 years, numerous papers and calendar positions have been published based upon the assumption that this rule was used by the Second Temple's priests to determine the ancient calendar and Holy Days. **Because so many brethren and church organizations have accepted these publications as fact, it is very important to address the validity of this assumption.** By demonstrating that the "Spring Passover Rule" was never used by the Second Temple's priests, the positions and conclusions of these previous publications are rendered baseless. **By exposing these publications to be baseless, the brethren and church organizations are obligated to rethink their current calendar understanding.**

Below is significant historical evidence which demonstrates that the ancient astronomy scholars for the greater area surrounding Jerusalem, Babylon, and Egypt did not employ the "Spring Passover Rule" for calendar determinations.

Some readers may not be familiar with the fact that Jerusalem was the central authority for administering a calendar which was used throughout the greater near east for the purpose of (quoting) "maintaining the unity of Israel". Through significant archaeological finds, this regionally used calendar has been reconstructed, and demonstratively proven to be consistent between the years 531 BC through 70 AD.

As a point of emphasis, not only is there overwhelming historical documentation showing that they did not employ the "Spring Passover Rule", **it needs to be stated emphatically that there are no (zero) discovered artifacts which contradict this statement.** That is, there are no historical / astronomical artifacts which provide any evidence whatsoever in favor of the alleged "Spring Passover Rule" ever actually being used in history by the official calendar authorities for Israel and the Second Temple.

Many have been taught that the Hillel II (the modern Jewish) calendar uses the "Spring Passover Rule". However this fallacy is very easily shown to be untrue. For example, in the year 1997 Purim was in the spring, obviously breaking this rule. In fact the rules specified to compute the Hillel II calendar never mention this rule.

Analyzing the historical records is vital to the calendar researcher. **The ancients observed an astronomical event in the sky, recorded the date of the event according to their own calendar, and then went about their business.** Today we can read their recorded astronomical sightings, then calculate precisely when the astronomical events they saw actually occurred. **From this analysis we can derive with certainty the rules they used to determine their official calendar.**

From the historical evidence we know that the ancient astronomy scholars maintained synagogues throughout the greater near eastern region, wrote letters regarding upcoming "close calls", and worked in conjunction with each other. They maintained a regional calendar, from Jerusalem to Babylon to Egypt.

From the record we know that the calendar of the Second Temple Era was based upon actual observation of the visual crescent new moon, that the year began with the first visual crescent new moon "of spring", and that Tishri 10 (the Day of Atonement) was always "in autumn". All of the evidence demonstrates that Tishri 10, the new year's day for counting Jubilees, was never allowed to begin in the summer. When necessary they consistently inserted a 2<sup>nd</sup> 6<sup>th</sup> month so that Atonement was celebrated in the autumn season. The ancient astronomy scholars adjusted the months, either adding a 2<sup>nd</sup> 6<sup>th</sup> month or a 2<sup>nd</sup> 12<sup>th</sup> month, as was required to keep the festivals in their season.

**It is easy to engage in arguments over how ancient Israel determined the "Sacred Calendar" as long as no one is asked to back up their claims with "objective historical evidence" in the form of recorded documentation and ancient artifacts.**

**This paper provides the historical data which demonstrates:** "This is how they determined their calendar". By basing analysis on astronomical sightings, firm mathematical objective evidence is presented, there is no speculation. **Their own data provides the authentic proof required to reconstruct the ancient calendar they used.**

The honest researcher is now obligated to either accept the conclusions of this paper, or else they must dispute the historical records and artifacts themselves.

**The Itemization Of The Historical Evidence:**

**Historical Evidence For Years Between 568 and 258 BC:**

These astronomical sightings and artifacts are listed because they specifically address the issue of the alleged "Spring Passover Rule". Each demonstrate that they did not use this rule. Each of these years were intercalated with a 2<sup>nd</sup> 12<sup>th</sup> month. The third column lists the lunar day of the spring and autumn equinox.

**Please Note: that “JDN” is “Julian Day Number”, the system used by astronomers, and that (minus) –567 is an astronomical-year-date, which is 568 BC.**

<b>Date Specified In Artifact, Seleucid Era Years</b>	<b>Astronomically Verified Julian Date of Artifact</b>	<b>Inserted a 2<sup>nd</sup> 12<sup>th</sup> Month Instead of Allowing The Equinox To Be On These Days:</b>
<b>Artifact’s Date For The Astronomical Sightings</b>	<b>Astronomical Sightings Happened On This Night</b>	<b>The New Crescent Was In Winter or Autumn, So They Waited A Month Rather Than Allow This:</b>
-256 / I / 1 (Nisan 1)	-567 / 04 / 22, JDN: 1514073.42	Did not allow Spring on the 3 <sup>rd</sup>
35 / I / 22 (Nisan 22)	-276 / 5 / 6, JDN: 1620375.42	Did not allow Spring on the 9 <sup>th</sup>
38 / VII / 1 (Tishri 1)	-273 / 10 / 6, JDN: 1621623.49	Did not allow Spring on the 11 <sup>th</sup>
45 / XII-2 <sup>nd</sup> / 10 (Adar-II 10)	-265 / 3 / 25, JDN: 1624350.49	Did not allow Spring on the 9 <sup>th</sup>
79 / VII / 1 (Tishri 1)	-232 / 10 / 2, JDN: 1636595.49	Did not allow Spring on the 14 <sup>th</sup>
100 / I / 13 (Nisan 13)	-211 / 4 / 29, JDN: 1644109.49	Did not allow Spring on the 6 <sup>th</sup>
132 / VI-2 <sup>nd</sup> / 16 (2 <sup>nd</sup> 6 <sup>th</sup> month, 16 <sup>th</sup> day)	-179 / 10 / 2, JDN: 1655953.49	Did not allow Autumn on the 9 <sup>th</sup> (almost the 10 <sup>th</sup> )
<b>A Priest’s Report (listed many sightings)</b>	-145 / 3 / 24, JDN: 1668179.16	Did not allow Spring on the 15 <sup>th</sup>
217 / I / 30 (Nisan 30)	-94 / 5 / 12, JDN: 1686856.49	Did not allow Spring on the 9 <sup>th</sup>
228 / VII / 2 (Tishri 2)	-83 / 10 / 7, JDN: 1691022.49	Did not allow Spring on the 11 <sup>th</sup>
236 / III / 17 (Sivan 17)	-75 / 6 / 27, JDN: 1693842.49	Did not allow Spring on the 9 <sup>th</sup>

<b>Jerusalem Horoscopes</b>		
48 / XII / 23 (Adar-I 23)	-262 / 4 / 3, JDN: 1625455.49	Did not allow Spring on the 13 <sup>th</sup>
53 / XII / 1 (Adar-I 1)	-257 / 3 / 17, JDN: 1627264.49	Did not allow Spring on the 8 <sup>th</sup>
54 / IX / 9 (Kislev 9)	-257 / 12 / 16, JDN: 1627538.49	Did not allow Autumn on the 18 <sup>th</sup>

The third column means that the ancient calendar astronomers declared a 2<sup>nd</sup> 12<sup>th</sup> month instead of allowing the astronomical spring equinox to fall on the lunar day given in the table. For example, in -567 they inserted a thirteenth month because the spring equinox would not come until the third day of that month (in question), and consequently, unless they did something, the fall equinox would occur on the twelfth day of the seventh month (which was not allowed because that would mean that the day of Atonement would not be in the autumn). Another example, in -75 they declared an Adar II rather than allow the equinox to occur on the 10th day of the month. This data demonstrates that they did not use the alleged "Spring Passover Rule".

**Historical Evidence From Josephus** Antiquities, Book 17, Chapter 6.4, quote: **"This Mattias the high priest, on the night before the day when the fast was to be celebrated, seemed, in a dream, to have conversation with his wife; and because he could not officiate himself on that account, Joseph, the son of Ellemus, his kinsman, assisted him in that sacred office. But Herod deprived this Mattias of the high priesthood, and burnt the other Matthias, who had raised the sedition, with his companions, alive. And that very night there was an eclipse of the moon."** This event is the fast on the night before the day of Purim, an Adar 15<sup>th</sup>, in some year near Herod's death.

There were only two lunar eclipses between 5 BC and 1 BC that were in the winter. These two choices are (Julian local time): Tuesday morning around 1:30 AM on 03/13/4BC and Thursday night around 7:00 PM on 03/23/5BC. With both choices, the only way to place those eclipses on Adar 15<sup>th</sup> is to **NOT** employ the alleged "Spring Passover Rule". When the alleged "Spring Passover Rule" is not used, it happens that both choices fall on Adar 15<sup>th</sup>. Whichever eclipse this event is referencing, it is clear that they were not using the alleged "Spring Passover Rule" circa 4 BC.

**Historical Evidence From The double dated Elephantine Letters** (printed as a separate document) demonstrate the same conclusion for the period 485 through 351 BC. All 21 cross dated letters between Jerusalem, Babylon, and Elephantine Egypt, do indeed reconcile using the same consistent calendar determination rules, in which the alleged "Spring Passover Rule" was never used.

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Wayne L. Atchison  
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No Spring Passover Rule  
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**Historical Evidence From The Reconstruction of the Babylonian Calendar** (printed as a separate document) which is based upon discovered artifacts citing intercalated years, also demonstrates the same conclusion for the period 531 BC through 378 BC, in which the alleged "Spring Passover Rule" was never used.

**Historical Evidence From Additional Astronomical Sightings:**

"Ancient Planetary Observations And The Validity Of Ephemeris Time", by Robert R. Newton. Copyright 1976. The John Hopkins University Press, Baltimore, Maryland 21218. ISBN 0-8018-1842-7. From pages 131 - 140, demonstrates the same conclusion for the period 568 through 76 BC. These astronomical sightings are listed because they address the issue of consistency over a very long time, demonstrating that they used the same intercalation rules for (at least) 500 years, and that the alleged "Spring Passover Rule" was never used.

<b>Date Specified In Artifact</b>	<b>Verified Julian Date of Artifact</b>	<b>Artifact's Astronomical Sighting</b>	<b>Comments</b>
-256 / I 1	-567 / Apr 22	Moon visible after sunset	Spring was on 4 <sup>th</sup> so waited for 1 <sup>st</sup> crescent after equinox
-256 / III 1	-567 / Jun 20	Moon visible after sunset	Looked for visual crescent
-256 / XI 1	-566 / Feb 12	Moon visible after sunset	Looked for visual crescent
-256 / XII 1	-566 / Mar 14	Moon visible after sunset	Looked for visual crescent
-211 / IV 14	-522 / Jul 16	Lunar Eclipse	Looked for visual crescent
-211 / X 14	-521 / Jan 10	Lunar Eclipse	Looked for visual crescent
-209 / II 9	-520 / May 20	Mars last evening east of Leo	Spring was on 13 <sup>th</sup> so waited for 1 <sup>st</sup> crescent after equinox
-67 / VIII 1	-378 / Oct 27	Moon visible after sunset	Looked for visual crescent
12 / VII 15	-299 / Oct 8	Mars in opposition	Autumn on Tishri 2
30 / VIII 1	-281 / Nov 4	Venus last evening at end of Scorpio	Spring was on 13 <sup>th</sup> so waited for 1 <sup>st</sup> crescent after equinox
35 / I 22	-276 / May 6	Mercury beg. Gemini	Spring was on 9 <sup>th</sup> so waited for 1 <sup>st</sup> crescent after equinox
38 / VII 1	-273 / Oct 6	Moon visible after sunset	Looked for visual crescent
45 / XIII 10	-265 / Mar 25	Mercury leaving Aries	Spring was on 10 <sup>th</sup> so waited for 1 <sup>st</sup> crescent after equinox
61 / VII 13	-250 / Oct 4	Mars at Eta Gemini	-250 Tishri 1-3 was in summer
63 / I 28	-248 / May 4	Solar eclipse	Looked for visual crescent
63 / VII 29	-248 / Oct 27	Solar eclipse predicted	Looked for visual crescent
72 / VIII 14	-239 / Nov 3	Lunar eclipse	-239 Tishri 1-4 was in summer
72 / XIII 1	-238 / Mar 17	Mercury leaving Aries	Spring was on 8 <sup>th</sup> so waited for 1 <sup>st</sup> crescent after equinox
79 / VII 1	-232 / Oct 3	Moon visible after sunset	Spring was on 15 <sup>th</sup> so waited for 1 <sup>st</sup> crescent after equinox
83 / VII 19	-228 / Oct 8	Venus at Beta Virgo	-228 Tishri 1-5 was in summer

94 / IV 26	-217 / Jul 18	Mercury 1st morning in Cancer	Nisan 1 was extremely close to the spring equinox.
94 / VII 12	-217 / Oct 30	Mercury 1st morning in Libra	Added 2 <sup>nd</sup> 6 <sup>th</sup> as autumn on 8 <sup>th</sup> so they waited for next month
100 / I 13	-211 / Apr 30	Lunar eclipse	Spring was on 7 <sup>th</sup> so waited for 1 <sup>st</sup> crescent after equinox
100 / VII 15	-211 / Oct 24	Lunar eclipse	Looked for visual crescent
110 / VII 15	-201 / Oct 5	Venus visible 9 degrees in evening	-201 Tishri 1-4 was in summer
118 VIII 14	-193 / Nov 5	Venus visible 12 degrees in morning	-193 Tishri 1-3 was in summer
132 / VI-2 10 (2 <sup>nd</sup> 6 <sup>th</sup> )	-179 / Sep 26	Venus at Delta Scorio	Spring equinox on Nisan 1. Autumn on 8 <sup>th</sup> so added 2 <sup>nd</sup> 6 <sup>th</sup>
140 VIII 11	-171 / Oct 30	Mercury visible 17 degrees in morning	-171 Tishri 1-4 was in summer
157 I 28	-154 / May 14	Mars at Eta Pisces	Spring was on 7 <sup>th</sup> so waited for 1 <sup>st</sup> crescent after equinox
179 II 8	-132 / May 30	Mercury 1st evening in Gemini	Spring was 9 <sup>th</sup> so waited for 1 <sup>st</sup> crescent after equinox
190 II 20	-121 / Jun 1	Mercury last morning in Taurus	Spring was on 11 <sup>th</sup> so waited for 1 <sup>st</sup> crescent after equinox
207 / V 13	-104 / Aug 13	Lunar eclipse	Looked for visual crescent
217 I 30	-94 / May 12	Venus at Gamma Gemini	Spring was on 9 <sup>th</sup> so waited for 1 <sup>st</sup> crescent after equinox
225 II 6	-86 / May 20	Mercury visible 15.5 degrees in evening	Spring was on 8 <sup>th</sup> so waited for 1 <sup>st</sup> crescent after equinox
228 II 11	-83 / May 21	Venus 1st evening in Gemini	Spring was on 11 <sup>th</sup> so waited for 1 <sup>st</sup> crescent after equinox
236 II 20	-75 / Jun 1	Mercury last morning in Taurus	Spring was 10 <sup>th</sup> so waited for 1 <sup>st</sup> crescent after equinox

The mass of astronomical sightings demonstrates the use of a consistent set of rules for an observed calendar being used for at least 500 years. This data demonstrates that they did not use the alleged "Spring Passover Rule". The evidence is overwhelmingly in favor of a consistent observed calendar.

**Evidence Derived From Analysis of "Close Calls":**

Following is a list of years between -521 and -377 in which the determination of the first or seventh months were very close to an equinox. Which years the ancient astronomers intercalated is collaborated by the well established work of "Babylonian Chronology 626 B.C. - A.D. 75 by Richard Parker and Waldo Dubberstein. Copyright 1956 by Brown University Press, Providence, Rhode Island. Library of Congress CCN 56-10735".

Years in which the spring or autumn equinoxes were not close to a new crescent are not listed. Please refer to BAB-530 for a full calendar restoration of these years, all years being cross-referenced to external historical evidence.

The following table is presented using the astronomical equinox. Notice that there were only 32 years having a "close-call" over a span of (-521 through-377) 144 years, and that **the alleged "Spring Passover Rule" was never used.**

Note that all of the data shows they used the exact same determination rules for at least 144 years. That they determined to intercalate a second twelfth month when the spring equinox fell on the 2<sup>nd</sup> lunar day or later. That is, they allowed Nissan to begin as long as the spring equinox fell sometime on the first lunar day. They allowed Tishri to begin as long as the autumn equinox fell before the tenth day of the month in question. If the equinox fell on the tenth day or later, they intercalated a 2<sup>nd</sup> 6<sup>th</sup> month in order to keep the festivals in their season.

Table is from a Jerusalem (Lat=31.7833, Lon=-35.2167) observer:

Accepted Tishri	Accepted Nissan	The Year	Rejected Nissan	Rejected Tishri
		-377	Spring on 2 <sup>nd</sup> or 3 <sup>rd</sup> , so made 2 <sup>nd</sup> 12 <sup>th</sup>	
Allowed Autumn on 9th		-380		
		-385	Spring on 4 <sup>th</sup> , so made 2 <sup>nd</sup> 12 <sup>th</sup>	
	Spring on 12/30, so okay	-388		Autumn on 10 <sup>th</sup> , so made 2 <sup>nd</sup> 6 <sup>th</sup>
		-396	Spring on 3 <sup>rd</sup> or 2 <sup>nd</sup> , so made 2 <sup>nd</sup> 12 <sup>th</sup>	
Allowed autumn on 9 <sup>th</sup>		-399		
		-404	Spring on 6 <sup>th</sup> or 5 <sup>th</sup> , so made 2 <sup>nd</sup> 12 <sup>th</sup>	
	Accepted winter crescent as Spring was same lunar day	-407		Autumn on 10 <sup>th</sup> , so made 2 <sup>nd</sup> 6 <sup>th</sup>
		-415	Spring on 2 <sup>nd</sup> or 3 <sup>rd</sup> , so made	

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			2 <sup>nd</sup> 12 <sup>th</sup>	
Allowed autumn on 9 <sup>th</sup>	Spring on 12/29, so okay	-418		
		-423	Spring on 4 <sup>th</sup> , so made 2 <sup>nd</sup> 12 <sup>th</sup>	
Allowed Autumn on 9 <sup>th</sup>	Accepted winter crescent as Spring was same lunar day	-426		
		-434	Spring on 2 <sup>nd</sup> , so made 2 <sup>nd</sup> 12 <sup>th</sup>	
Allowed Autumn on 9 <sup>th</sup>	Accepted winter crescent as Spring was same lunar day	-437		
		-442	Spring on 5 <sup>th</sup> or 4 <sup>th</sup> , so made 2 <sup>nd</sup> 12 <sup>th</sup>	
Allowed Autumn on 9 <sup>th</sup>	Accepted winter crescent as Spring was same lunar day	-445		
		-450	Spring on 5 <sup>th</sup> , so made 2 <sup>nd</sup> 12 <sup>th</sup>	
		-453	Spring on 3 <sup>rd</sup> , so made 2 <sup>nd</sup> 12 <sup>th</sup>	
Allowed Autumn on 9 <sup>th</sup>		-456		
		-461	Spring on 5 <sup>th</sup> , so made 2 <sup>nd</sup> 12 <sup>th</sup>	
	Accepted winter crescent as Spring was same lunar day	-464		Autumn on 9 <sup>th</sup> , so made 2 <sup>nd</sup> 6 <sup>th</sup>
		-469	Spring on 6 <sup>th</sup> or 5 <sup>th</sup> , so made 2 <sup>nd</sup> 12 <sup>th</sup>	
		-472	Spring on 3 <sup>rd</sup> , so made 2 <sup>nd</sup>	

			12 <sup>th</sup>	
Allowed Autumn on 9th	Spring on 12/29, so okay	-475		
	Accepted winter crescent as Spring was same lunar day	-483		Autumn on 10 <sup>th</sup> , so made 2 <sup>nd</sup> 6 <sup>th</sup>
		-491	Spring on 4 <sup>th</sup> or 3 <sup>rd</sup> , so made 2 <sup>nd</sup> 12 <sup>th</sup>	
Allowed Autumn on 9th	Spring on 12/29, so okay	-494		
		-499	Spring on 5 <sup>th</sup> , so made 2 <sup>nd</sup> 12 <sup>th</sup>	
	Accepted winter crescent as Spring was same lunar day	-502		Autumn on 10 <sup>th</sup> , so made 2 <sup>nd</sup> 6 <sup>th</sup>
		-510	Spring on 3 <sup>rd</sup> , so made 2 <sup>nd</sup> 12 <sup>th</sup>	
	Spring on 12/29, so okay	-513		
	Accepted winter crescent as Spring was same lunar day	-521		Autumn on 10 <sup>th</sup> , so made 2 <sup>nd</sup> 6 <sup>th</sup>

**Conclusion:**

The objective historical evidence consists of hundreds of astronomical data points covering the timeframe between 568 BC through 4 BC. The evidence overwhelmingly demonstrates that the official scribes, who recorded the events of history, never employed the alleged "Spring Passover Rule". The evidence demonstrates that the ancient astronomy scholars of the Second Temple did not allow Nissan 2 or later to be in the winter, nor Tishri 10 or later to be in the summer. Starting Atonement, **which is the first day of the Sabbatical and the Jubilee yearly cycles**, in the summer was never allowed. They would add a 2<sup>nd</sup> 12<sup>th</sup> month or a 2<sup>nd</sup> 6<sup>th</sup> month as was needed to keep the festivals in their season. The objective historical evidence is overwhelmingly in favor of a consistent and simple set of rules for an observed calendar.