

## Why are there 50 days from Pesach to Shavuot?

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### Motivating questions

We're in the season between Pesach and Shavuot. Why are there 50 days from Pesach to Shavuot, the 1<sup>st</sup> day of Pesach and 49 days of counting the *omer*?

Why does the Torah say the first month is the time we celebrate Pesach and why does it call that month Aviv, rather than Nisan, its name today?

Why do we call the holiday Shavuot, or the “Feast of Weeks”, if it commemorates the giving of the Torah at Sinai?

There are some calendar questions related to these:

Why are there 7 “Sabbaths of Consolation” between Tisha b’Av and Rosh Hashanah?

Why do we start the year at Rosh Hashanah in what the Torah calls the seventh month?

Main source:

Hildegard and Julius Lewy, The Origin of the Week and the Oldest West Asiatic Calendar, Hebrew Union College Annual 1943

### Key phrases from Torah

Parashat Emor Lev. 23 is one of the places in the Torah that sets out the calendar of Shabbat and the festivals.

First is Shabbat:

מִקְרָאֵי קֹדֶשׁ אֲלֶהֶם מוֹעֲדֵי: שֵׁשֶׁת יָמִים תַּעֲשֶׂה  
מִלְאָכָה וּבַיּוֹם הַשְּׁבִיעִי שַׁבַּת שַׁבְּתוֹן מִקְרָא־  
קֹדֶשׁ כָּל־מְלָאכָה לֹא תַעֲשׂוּ שַׁבַּת הוּא לַיהוָה  
בְּכָל מוֹשְׁבֹתֵיכֶם:

On six days work may be done but the seventh day is a *shabbat shabbaton*, translated as a “sabbath of complete rest” (new JPS) or of solemn rest (Plaut) or perhaps a sabbath of sabbaths. It is a *mikra kodesh*, a sacred occasion (or holy convocation (Hirsch)). You shall do no work. It is a Sabbath of Adonai in all your settlements.

Next: At twilight of the 14<sup>th</sup> day of the 1<sup>st</sup> month is Pesach, meaning the sacrifice of the Passover offering, not the entire week. The 15<sup>th</sup> day of 1<sup>st</sup> month is *Chag ha-matzot* of

Adonai, distinct from Pesach. You shall eat matzo for 7 days.

בֵּין הָעֲרֵבִים פֶּסַח לַיהוָה: וּבַחֲמִשָּׁה עָשָׂר יוֹם  
לְחֹדֶשׁ הַזֶּה חָג הַמַּצּוֹת לַיהוָה שִׁבְעַת יָמִים מַצּוֹת  
תֹּאכְלוּ: בַּיּוֹם הָרִאשׁוֹן מִקְרֵא-קֹדֶשׁ יִהְיֶה לָכֶם כָּל-  
מִלְאֶכֶת עֲבֹדָה לֹא תַעֲשׂוּ: וְהִקְרַבְתֶּם אִשָּׁה לַיהוָה

The first day is a *mikra kodesh* and you shall do no work. This begins 7 days of sacrifices, and the 7<sup>th</sup> day is also a *mikra kodesh* when no work shall be done.

Immediately afterward (Lev 23:10) we read

וְאָמַרְתָּ אֲלֵהֶם כִּי-תָבֹאוּ אֶל-הָאָרֶץ אֲשֶׁר אָנֹכִי  
נֹתֵן לָכֶם וּקְצַרְתֶּם אֶת-קִצְרֶיהָ וְהִבֵּאתֶם אֶת-  
עֹמֶר רֵאשִׁית קִצְרְכֶם אֶל-הַכֹּהֵן: וְהִנִּיף אֶת-  
הָעֹמֶר לִפְנֵי יְהוָה לְרֹאשׁוֹנְכֶם מִמְּחֻרַת הַשְּׂבִיט יֵיפְנוּ  
הַכֹּהֵן: וַעֲשִׂיתֶם בַּיּוֹם הַנִּיפְכֶם אֶת-הָעֹמֶר כְּכֹשֶׁ

When you come to the land that I am going to give you, and you reap its harvest, you must bring an *omer* of your first reaping to the *kohen*.

An *omer* is a measure of volume and here means a sheaf of barley.

The *kohen* shall wave the *omer* before Adonai *mi-machorat ha-Shabbat*, on the day after the sabbath. But there was a controversy in Talmudic times over whether this meant on a Sunday or on the day after the day of no work at the beginning or end of the 7 days of eating matzo. Different groups interpreted it differently (mainstream Jews, Karaites, Samaritans, the Qumran sect of the Dead Sea Scrolls).

The text describes the offerings and sacrifices to be brought. Then we read:

מִשְׁבֹּתֵיכֶם: וּסְפַרְתֶּם לָכֶם  
מִמְּחֻרַת הַשְּׂבִיט מִיּוֹם הַבְּיָאָכֶם אֶת-עֹמֶר הַתְּנוּפָה  
שִׁבְעַת שָׁבָתוֹת תְּהִינָה: עַד מִמְּחֻרַת הַשְּׂבִיט  
הַשְּׁבִיעִת תִּסְפְּרוּ חֲמִשִּׁים יוֹם וְהִקְרַבְתֶּם מִנְחָה  
חֹדֶשׁ לַיהוָה: מִמּוֹשְׁבֹתֵיכֶם תְּבִיאוּ | לַחֹם תְּנוּפָה

We count seven complete weeks from the day of bringing the *omer* as a wave offering, until the day after the 7<sup>th</sup> Shabbat, when there will be a total of 50 days.

The phrase *mi-machorat ha-shabbat* occurs twice more here.

The 50<sup>th</sup> day is a *mikra kodesh* and no work is to be done. The text specifies that we are to bring new grain, *mincha chadashah l'Adonai*, together with other offerings and sacrifices. Until we bring these we may not use the produce in any way.

This festival isn't named here but in Ex 23 it is called *Chag ha-katzir bi-kurei ma-asecha* (feast of the harvest, of the first fruits of your work). In Ex 34 it is called *Chag Shavuot*, but this seems to be a later addition and doesn't reflect the agricultural nature of the holiday. The association with the giving of the Torah at Sinai isn't in the Torah itself but goes back to Second Temple times.

The text then describes the other festivals we know as Rosh Hashanah, Yom Kippur, and Sukkot, all in the 7<sup>th</sup> month. Sukkot also lasts 7 days, with offerings each day but there is also an 8<sup>th</sup> day. The 1<sup>st</sup> and 8<sup>th</sup> days are *mikra kodesh* and the 8<sup>th</sup> day is described this way:

מִקְרָא־קֹדֶשׁ כָּל־מִלְאכַת עֲבֹדָה לֹא תַעֲשׂוּ: שִׁבְעַת  
יָמִים תִּקְרְבוּ אֵשֶׁה לִיהוָה בַּיּוֹם הַשְּׁמִינִי מִקְרָא־  
קֹדֶשׁ יִהְיֶה לָכֶם וְהִקְרַבְתֶּם אֵשֶׁה לִיהוָה עֲצֵרַת  
הוּא כָּל־מִלְאכַת עֲבֹדָה לֹא תַעֲשׂוּ: אֶלֶּה מוֹעֲדֵי

*atzeret hi*, translated as solemn gathering or even time of retreat ([bible.ort.org](http://bible.ort.org)). So there is a parallel with *Chag ha-matzot* that will be important for understanding the calendar.

In Leviticus and Exodus the descriptions are of agricultural festivals specified on certain days of certain months. But in Parashat Re'eh, Deut 16, the Torah lists the festivals without such references. Pesach (the Passover sacrifice) is observed in the month of Aviv (new ear of grain). Then it says we eat matzo for 7 days and the 7<sup>th</sup> day is *atzeret l'Adonai*, a solemn gathering to Adonai. So there is an *atzeret* for Sukkot and for *Chag ha-matzot*. The 50-day *omer* period starts when the sickle is first put to the standing grain. So here it is not a fixed day of the calendar but is determined by agricultural conditions. Similarly, the 7 days of Sukkot begin after the fall harvest.

## Calendars

We are really dealing with several calendars. There is an agricultural calendar, which can vary from place to place according to the state of the crop. There is a calendar based on months, which could be a strictly lunar calendar or a combination lunar-solar calendar. For example, our current secular calendar is solar (months have nothing to do with phases of the moon), the Moslem calendar is lunar (Ramadan can fall at any time of the solar year), and our current Jewish calendar is lunar-solar.

The Torah and more generally the Tanach reflect the way the Jewish calendar evolved over close to 2000 years before it reached its final form.

### **Ancient Mesopotamian cosmology**

The day, month, and year can be observed directly by watching the sky but the week cannot be. The idea of dividing time into 7-day weeks came about for different reasons. There are Sumerian religious texts from the 23<sup>rd</sup> century BCE that indicate a 7-day cycle. Later, the Assyrians and Babylonians had a calendar based on celestial observations but retained the 7-day cycle. The 7 days were associated with 7 wind gods, each blowing from one of 7 directions.

Why 7? Perhaps because there are 7 celestial bodies visible from Earth without a telescope. In many European languages, the days of the week are named after the Sun, the Moon, Mars, Mercury, Jupiter, Venus, Saturn, in that order. For instance, Thursday is *jeudi* in French and *giovedì* in Italian; these derive from Jupiter. In other languages they are named after ancient gods. In English, Thursday is named after Thor, the old Teutonic god of thunder; in German and Yiddish it's *donnerstag*, thunder-day. So the Mesopotamian wind gods aren't so unusual.

In old Babylonia there were 7 prominent cities. Each had its own 7 gods, 49 in all, and sometimes there was a 50<sup>th</sup> who commanded the winds and was worshipped in a temple called "The House of Fifty." The cuneiform symbol for universe was often written with the signs for 7 and 50.

Old Assyrian business documents (a little earlier than the Babylonians) suggest that merchants used a calendar based on 50-day periods (7 weeks plus one day) as well as one based on months. These periods are called pentecontads, after the Greek word for 50 (also the source of the name of Pentecost, the Christian holiday that comes on the 50th day after Easter – analogous to Shavuot). There were 7 pentecontads in a year, each ending with a festival, and totaling 350 days. This was followed by a period called a *shapattum* when no business was transacted, and then the new year began. The pentecontads corresponded to agricultural periods (they referred to plucking grapes, grain harvest, etc.). The year began during the month of the grain harvest, called *nisanu* in Babylon (the source of the name *Nisan*, the month of Pesach).

The Amorites, whose origins were in the western part of the Fertile Crescent, ruled Mesopotamia during 19<sup>th</sup>–16<sup>th</sup> c. BCE. Their kings included the famous Hammurabi. The documents in Babylonia and Assyria that use certain terms from the pentecontad calendar relating to the *shapattum* date only from their rule, not before and not after. So it would seem that the Amorites brought these terms with them to Mesopotamia. That suggests that their calendar was used in areas that included what eventually became Israel.

In their paper, Lewy & Lewy suggest that the ancient Amorite calendar inserted enough *shapattum* days at the end of the year to allow the grain to ripen so that on the first day of the first pentecontad of the new year the first cut could be offered. This was a local phenomenon, and as city-states were incorporated into a large empire there was a need for standardization. The length of the *shapattum* would have been fixed (at 15 or 16 days) and this may also have led to the development of an alternate calendar based on celestial

observation. In any case, the pentecontad system would have gotten out of step with the actual agricultural year. After it was abandoned, only the 50-day period corresponding to the grain harvest remained, which we see in the Hebrew calendar as the period between Pesach and Shavuot and in the Christian calendar as the period between Easter and Pentecost. Lewy & Lewy report that traces of the old calendar were found in a 1913 study of Christian peasants (fellahin) of “southern Palestine.”

### **Phases of calendar evolution as seen in Torah**

The story of Noah and the Flood in Genesis mentions specific dates, e.g. the rains began on the 17<sup>th</sup> day of the second month. These dates fit a pentecontad calendar if the *shapattum* is divided into two parts, spring (7 days) and fall (8 days). This matches the 7 days of Pesach and the 7+1 of Sukkot.

The Babylonians and Assyrians celebrated their new year by going *en masse* to temples outside their cities for several days. Before the Exodus, Moses asked Pharaoh for permission for the people to go into the wilderness for three days for sacrifices. This resonates with the new year festival which would have taken place at that season.

We start to count the omer on the second day of Passover, the day after *Chag ha-matzot* begins, and Shavuot follows after counting 49 days, i.e., on the 50<sup>th</sup> day starting with the *chag*. However, the Ethiopian Jews, at least in the mid-19<sup>th</sup> century, celebrated a harvest festival 57 days afterward. Similarly, they had a 7-day fall festival starting on the 15<sup>th</sup> day of the 7<sup>th</sup> month, and also ate unleavened bread then (but did not know about booths ‘sukkot’). They then celebrated a festival on the 57<sup>th</sup> day. This fits if we interpret *mi-machorat shabbat* as starting to count 50 days the day after the 7-day festival.

The 7 Shabbatot of consolation beginning at Tisha b’Av seem to correspond to the 7 weeks of a pentecontad that began in the middle of Av. In the Old Assyrian calendar, the preceding pentecontad was named for gathering firewood. The Talmud and Josephus refer to a celebration in mid-Av when people brought wood to the Temple. This would be the last day of firewood pentecontad. According to Josephus, the First Temple was destroyed in 586BCE on precisely that day, i.e., in that year the pentecontad ended on 9 Av. Counting 50 days from 2 Tishrei and the fall *shappatum* would have ended on 10 Tishrei, Yom Kippur. It may be that the destruction of the First Temple led to making both 9 Av and 10 Tishrei fast days. These ideas are echoed in the books of Nehemia and Zacharia.

### **From then to now**

There were various changes in the calendar over time, motivated by the need to make corrections when the calendar fell out of alignment with the seasons, to restore earlier religious practice, or for political reasons. Solomon (10<sup>th</sup> c.), Jereboam I (10<sup>th</sup> c.), Josiah (7<sup>th</sup> c.), Ezra (5<sup>th</sup> c.), Darius (5<sup>th</sup> c.) all made changes.

It was in the 5<sup>th</sup> c. BCE, under Persian influence, that the months received Babylonian names instead of being numbered as they were originally and as the days of the week are numbered today.

It's not clear when the shift of the New Year from Nisan to Tishrei took place. Solomon placed it on the day of the autumnal equinox. One scholar (Edwin Thiele) says that after the division of Israel into Israel and Judah, Israel celebrated it in what is now Nisan and Judah in what is now Tishrei. Josephus (1<sup>st</sup> c. CE) said that the start of the civil year was in Tishrei.

It's not clear when the current calendar was adopted, based on mathematical principles rather than observation of the crops or the moon, but it seems to have been around 350 CE in Israel (Hillel ben Yehuda), although it may not have arrived at its final form until around 700-800 CE in Babylonia. (Wikipedia)