

## Why 5<sup>th</sup> December

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One of the more perplexing statements in the siddur is that one should begin to recite the prayer for rain in the weekday Amidah (V'ten tal umatar livrachah – for example on p.81 of the centenary edition of the Singer's siddur and p.84 of the new edition) on the 5<sup>th</sup> of December or thereabouts. Why is there a reference to the civil calendar? And what's so special about the 5<sup>th</sup> of December?

There is no doubt about the source of the date for beginning to recite "Tal umatar": the Shulchan Aruch repeats the statement in the Mishnah that, outside of the land of Israel, one should begin saying the prayer for rain 60 days after T'kufat Tishri (generally understood to be the autumnal equinox, the beginning of autumn). But this leads to an obvious difficulty: the autumnal equinox usually falls on or around the 23<sup>rd</sup> of September. And 60 days later is the 22<sup>nd</sup> of November, not the 5<sup>th</sup> of December!

The explanation for the date of 5<sup>th</sup> December for beginning the prayer for rain is that it is based on an inaccurate calculation. When the Mishnah was written in Roman times (say, around 250 C.E.), it was thought that the solar year was approximately  $365\frac{1}{4}$  days long; and, the rule for outside of Israel was that the prayer for rain was to be said from 60 days after the autumnal equinox – which was calculated to take place 365 days and 6 hours after the previous autumnal equinox. But, in fact, since the year is actually around 11 minutes shorter than  $365\frac{1}{4}$  days long, with each passing year, the Mishnaic calculation of the autumnal equinox (first day of autumn) comes a further 11 minutes later than the time of the true equinox (the moment when the day and night are of equal lengths). [I can add, in passing, that, to correct a similar drift, our civil calendar was changed from the Julian to the Gregorian in the 18<sup>th</sup> century; also, the fixed Jewish calendar, adopted around 1000 years ago, uses a more accurate estimate of the length of the solar year and not  $365\frac{1}{4}$  days].

So, now, after some 1750 years of accumulating 11 minutes delay per year, the Mishnaic calculation of the autumnal equinox comes  $1750 \times 11$  minutes, or about 13 days later than the **true** equinox – not on 23<sup>rd</sup> September, but around the 6<sup>th</sup> of October (often a day earlier in civil leap years). And 60 days later than the (incorrect) Mishnaic calculation of the autumnal equinox is the 5<sup>th</sup> of December.

Although several possible reasons are given as to why this apparent error is not corrected, my own view is simply that there is no longer any Jewish authority which would be prepared (or able) to make such a change and have it universally accepted. This holds for other astronomical anomalies that are retained because there is no mechanism (or no accepted Beth Din or Sanhedrin) for changing it: specifically, the extra days of Yom Tov (Pesach, Shavuot and Succot) outside of the land of Israel and the occasional two days' observance of Rosh Chodesh (New Moon), even within Israel. The latter was originally based upon the uncertainty of the day on which Rosh Chodesh fell; for the past 1000 years that we have had a fixed calendar (and when the day of Rosh Chodesh does not necessarily correspond to the astronomical New Moon, the Molad), this uncertainty does not exist.

Since there is no halachic authority to confirm that the Mishnaic calculation is inaccurate, we stick to the Mishnaic calculation of the date of the autumnal equinox which leads to the prayer for rain, "Tal umatar", beginning on the 5<sup>th</sup> of December. And, of course, since the calculation continues to be inaccurate, within another 100 years, the date will advance to 6<sup>th</sup> December, and then to the 7<sup>th</sup>, etc. And after another 10,000 years, it will begin to approach the beginning of spring and the **end** (not the beginning) of the rainy season!! No doubt, something will happen before then to sort matters out.



### Just Joking

Before going to Ma'ariv on the evening of 5<sup>th</sup> December, the Yekke said to his wife "I'm going to be home a little bit late today – we are starting to say "V'ten tal umatar livrachah".