

BIBLICAL CALENDAR- Part I-Introduction to Calendars

A *calendar* is a system for assigning numerical and/or temporal dates to actual days, so as to be able to track them and order them better. The world has many different types of calendars.

There are three main types of calendars, the solar, the lunar and the luni-solar.

Lunar

The lunar calendar follows the rotation of the Moon. In fact, the word *month* comes from the word *moon*. Every rotation of the Moon around the Earth is one month and there are 12 months in one year. Each month begins at a particular phase of the moon and starts again when the same phase appears again. Most peoples who use the lunar calendar begin with the new moon since it is the easiest phase to identify. Others use the dark moon or conjunction points or the full moon. Moon months are either 29 or 30 days long.

An example of a lunar calendar is the Muslim calendar.

The problem with lunar calendars is that a lunar year consists of 12 lunar months, which works to about 354 days. A solar calendar is approximately 365¼ days. This causes a difference of 11¼ days which accumulates in three years to more than a month. If no adjustments are made (eg. in the Muslim calendar), any month could occur in any season of the year.

Solar

The solar calendar follows the rotation of the Earth around the Sun. It starts at a particular day (the founding of a nation, the day a king rises to power, beginning of spring, the end of winter, or so forth) and when the sun and the earth return to the same place in the heavens in relation to each other, a year has passed. Usually the months are not determined by the moon but artificially divided into a certain number of months with a pre-determined number of days.

Where a solar calendar reckons the position of the earth with respect to the fixed stars, it is called a *sidereal solar calendar*. The Hindu calendar is an example. The calendar was made up to 365 days, divided into 12 months, with an extra day added in every few years to synchronise it with the sun.

Where a solar calendar reckons the position of the earth with respect to the equinox, it is called a *tropical solar calendar*. Examples are the Gregorian calendar we commonly use today, and the Julian calendar (which was the pre-cursor of the Gregorian calendar).

The Julian calendar was a reform of the Roman calendar introduced by Julius Caesar from 45 BC. The calendar was made up to 365 days, divided into 12 months of 30 or 31 days except for February which had 28 days. Every 4 years, an extra day was added to February, making it a *leap year*.

This calendar was a little too long causing the vernal equinox and the date of Easter to drift forward. In 1582, Pope Gregory XII adopted a new rule, that every year that is

exactly divisible by 4 is a leap year, except for years that are exactly divisible by 100; the centurial years that are exactly divisible by 400 are still leap years. The new calendar, called the Gregorian calendar was slowly adopted in Western countries, and later by effects of colonialization affected most of the world. Nearly every place on earth now uses the Gregorian calendar as their civil calendar. Only the Orthodox churches for purposes of their religious calendar still keep the Julian calendar or a Revised Julian calendar.

Luni-solar

Although the universal civil calendar today is the Gregorian (Catholic) calendar, many of the religious calendars still use the luni-solar calendar, such as for the Jews, Chinese, Korean and Japanese. This is based on calculations based both on the rotation of the Moon around the Earth and of the Earth around the Sun. Like the lunar calendar, the month is observed based on the movement of the moon. Therefore, months are 29 or 30 days long. However, to align the months to the Sun and thus the seasons, an adjustment to the calendar must be made every few years. Every few years, an extra month is added to a year. Such a month is called an *intercalary month*. And the years that they occur in are called *leap years*.

Moncy **Mathew, Leader**

Mishkan Torat Chaiim (Tabernacle of the Living Word)