FEBRUARY 15-29, 2016 NATURAL HISTORY NOTES FOR EASTVIEW
By Dick Harlow

HAPPY LEAP YEAR

Every four years in the Gregorian calendar, an extra day is added to the calendar in order to synchronize it with the solar year.
And, by Irish tradition if you are a woman and ask a man to marry you on February 29th he has to say yes!!

GARDENING BY THE LUNAR CYCLE

Full Moon © Dick Harlow

I thought it would be interesting to write about lunar cycles and how the moon and moon glow affects gardening and plants. As many of you know the moon has 4 phases known as quarters each lasting about 7 days. Half of the quarters are during a waxing moon, increasing light shown on the moon and the second half is during the moon's waning, or decreasing light. Simply, the first two quarters refer to the moon moving toward full moon, more light, more of the moon shown; and the last two quarters refer to the full-lighted moon decreasing, less light, moving to a new moon or to no visible moon in the sky.

We all learned that there is significant gravitational pull on the world's oceans, generally on water, even freshwater, as the moon and sun align with each other and the moon reaches full and new moon. Gardeners and farmers have known for eons that this affect on water is important for plants. If water can be pulled upward as in tides, then it can have a similar affect on water in the soil and be pulled upward as soil water. This results in soil moisture moving upward into surface soils during these phases of the moon, or settles back down into the soil as the gravitational pull decreases.

Since moisture is necessary for life and necessary to plants and plant growth we can see why this phenomenon would be paramount in agriculture and gardening. This is probably why

farmers plant seed just before full moon. There is scientific evidence that proves that seeds absorb more water during full moon. It thus makes sense to transplant at a time when water will increase in surface soils.

If we start when the night sky is dark with no visible moon, called the **first quarter** also known as the new moon, there is still visible gravitational pull on soil water and therefore additional water for planted seeds. This is the time in the moon cycle when there will be increasing night light as the moon moves from new (first quarter) to full, (second quarter).

Plant: During this period it is said that annual crops that produce seed are best to plant, such as lettuce, spinach and grain crops such as oats and wheat.

Oats, Avena sativa **© Dick Harlow**

At **second quarter** the gravitational pull has decreased somewhat, but the slivers of moonlight are getting brighter as these 7 days progress to full moon. And, of course as we progress to full moon so too will the gravitational pull reactivate and pull our tides and move soil water up toward the surface.

Plant: Here it is recommended that two days before full moon plant peas, beans, squash and tomatoes, plants that produce seed inside the fruit.

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Garden Tomato, *Solanum lycopersicum*
© From Wikipedia, the free encyclopedia

Third quarter, now as full moon subsides, light diminishes, but for a short time water will still be high in the soil as a result of the full moon.

Plant: Root crops, such as carrots, beets onions, etc., along with perennials; and this is a good time to transplant.

Carrot, Daucus *carota* **© guiltfreefoodguide.com**

During the **fourth quarter** there is less and less moonlight moving in the direction of a new moon; gravitational pull is also less and the old adage says that this rest period is best for cultivating gardens, harvesting crops, transplanting, working on the garden to help aerate the soil and get ready for the next moon phase with an increased gravitational pull of soil water.

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Before TV, cell phones and even radio, we knew how the moon phases affected agriculture. It was important for farmers who were at the "will of nature", the weather conditions, to use any natural phenomenon that could yield a good crop, a bumper harvest, and thus help the farmer and his family survive another year. Consequently, and what is interesting as we became suburbanized, many gardeners opted into this same knowledge base.

Being at the end of February, and this is a leap year, it is also considered the end of winter, although the weather and many folks may not see it that way! Astronomically, the seasons are divided by month. Winter starts in December through February and spring begins with March and runs through May; summer is from June through August and fall is from September through November. This is all very logical, weather-wise.

Weather Tidbits

Month of February 2016

All Measurements taken at solar noon (1230 EST).

PRECIPITATION

Total Precipitation: 96.8mm or 3.8 inches

Precipitation includes rain and snow melt.

Snow Days: 5

Snowfall for February 1-29: 73.2 mm or 2.9 inches

Overcast Days: 19

WIND

Highest wind gust: February 20, 45 MPH, Direction: North

Average Wind speed for February: 2.8 mph,

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Dominate Wind Direction: North

Days w/wind gusts 20-30 MPH: 18

Days w/wind gusts 30 MPH: 5

TEMPERATURE

Mean Temp: -2.6 C^0/27.3^{0}F
High Temp: 22.2 C^0/71.9^{0}F
Low Temp: -29.2 C^0/-20.6^{0}F

DAYS OF:

Min. Temp: 0.0 C^0/32^{0}F: 26 days
Min. Temp: -18 C^0/-0.4^{0}F: 5 days
Max. Temp: 0.0 C^0/32^{0}F: 11 days