



☼ \* ○ ● SYMBOLS FOR STARS IN ORDER OF BRIGHTNESS

world, the greatest concerted scientific effort ever attempted, to learn more about the earth and its environment. This is the International Geophysical Year and the earth satellite program is part of it, designed to tell more about the upper atmosphere itself.

Another important group of studies is concerned with the auroras, both of the north and south polar regions, along with other effects which the sun has on the earth. Indeed, the period from July 1, 1957, to Dec. 31, 1958, was chosen for the IGY largely because solar activity is now at maximum, and these effects are at their height, permitting observation by scientists around the world.

**Celestial Time Table for August**

AUG.	EST	
2	1:55 p.m.	Moon in first quarter
4	4:03 p.m.	Moon passes Saturn
10	8:08 a.m.	Full moon
12	early a.m.	Meteors visible radiating from constellation of Perseus
	9:00 a.m.	Moon farthest, distance 252,400 miles
18	11:16 a.m.	Moon in last quarter
22	10:00 a.m.	Venus passes Jupiter
25	6:32 a.m.	New moon
27	11:52 a.m.	Moon passes Jupiter
	8:16 p.m.	Moon passes Venus
31	10:33 p.m.	Moon passes Saturn
	11:34 p.m.	Moon in first quarter

Science News Letter, July 27, 1957

**PUBLIC HEALTH**

# Sex Affects Longevity

➤ IN THE LAST 50 years, men have not only continued to die off faster than women, but the difference between their life expectancies is on the increase.

The Institute of Life Insurance, New York, reports that in 1900 the life expectancy of males of all races was 46.3 years as against 48.3 for females. In 1955, the top ages were 66.7 for the males and 73.6 for females, the difference having increased from two years to seven years.

Some experts have claimed that men just live a more stressful life these days. This explanation is contradicted by a study of men and women who had taken religious vows as Catholic Brothers and Sisters made by Francis C. Madigan, S.J., University of North Carolina, Chapel Hill.

Brothers and Sisters were chosen as the study group since they were considered to have about the same amount of cultural stress and strain. Any difference in life expectancy found between them must then be ascribed to biological differences.

"While in the general public single men are more given to dissipation than single women, a life of dissipation is equally out of the question for both sexes in religious communities," Father Madigan says.

Furthermore, Brothers are not subject to military service after entering religious life and the daily regime of both Brothers and Sisters is extremely similar.

Life records of more than 9,000 Brothers

and 32,000 Sisters were compiled covering the period 1900 to 1954. They showed that even in these matched communities the males were still being outlived by the females, even though both groups enjoyed longer life than the average population.

Another finding was the spectacular improvement in mortality of young Sisters under observation from the early to the late years of the study. This suggests that, contrary to popular belief, women may be no more resistant to infectious or contagious diseases than men, under conditions of equal stress, but that their gain in longevity is mainly due to a greater resistance to the degenerative diseases.

The finding that biological factors played by far the chief part in differentiating the death rates of these two groups is very important, Father Madigan reports.

The same factors probably are at work in the general public and the social stresses associated with the man's role in society play only a small and unimportant part in causing the difference in life span between the sexes.

If medical science can find out what these biological factors are, the growing sex difference in life expectancy may be eliminated.

The results of Father Madigan's study are contained in a report in *The Milbank Memorial Fund Quarterly*.

Science News Letter, July 27, 1957

**BIOCHEMISTRY**

# Blood Pressure Secrets From "Hot" Tomatoes

➤ "HOT" TOMATOES may furnish a clue to certain problems related to high blood pressure.

Dr. Irving Zabin, physiological chemist at the University of California at Los Angeles Medical School, is using radioactive tomatoes, the garden variety, to study certain chemical structures similar to those found in cholesterol. Cholesterol is the fatty substance found in the body thought by some scientists to be related to high blood pressure.

The center of interest is the substance that makes tomatoes red, a carotenoid pigment. This substance contains a multiple of a five-carbon-atom structure, which is also found in cholesterol.

Dr. Zabin is currently tracing the formation of the tomato red pigment.

Compounds containing radioactive carbon are injected into tiny holes drilled in green tomatoes, and the holes are sealed with paraffin. When the tomato ripens, that is when the carotenoid red replaces the chlorophyll green, the red pigment is extracted. It is then analyzed to see how the radioactive carbon atoms are incorporated in the chemical structure.

While these studies have no direct bearing on the treatment of high blood pressure, they are a basic step in gathering the vast amount of data necessary to understand how nature builds complex substances such as cholesterol.

Science News Letter, July 27, 1957

**ENTOMOLOGY**

# Mosquitoes and Flies Win Unpopularity Poll

➤ MOSQUITOES and house flies share top honors in a nation-wide unpopularity poll conducted by the U. S. Department of Agriculture. About three-fourths of the 33 states reporting in the survey listed these insects among the most important household pests for 1956.

Several insects normally found out of doors have gotten into enough homes to become serious problems. Clover mites were among the top ten household pests in 11 states; boxelder bugs in five and earwigs in five states.

Ants, however, seem to stick pretty much to picnic grounds. Only eight states listed them as an important household insect problem.

Termites, carpet beetles and clothes moths, and cockroaches turned up among the top ten in more than half the state lists.

The survey covered all sections of the country and included insect pests affecting livestock. Number one pest in this category was the horn fly, with cattle grubs, cattle lice and stable flies as runners-up.

Science News Letter, July 27, 1957

About three in ten households in the U. S. eat less calcium and one in four less ascorbic acid than recommended.

