

The chemists will not be able to find a synthetic fiber that will dry rapidly like nylon and at the same time allow moisture to penetrate it like cotton, Dr. Adams explained, because these two properties are incompatible.

But he predicted that synthetic fibers will replace the natural fibers, with half the wool now consumed substituted by synthetics within 10 to 20 years, and this discovery of strong, durable, moisture-absorbing synthetic fibers to replace cotton. The cotton-replacing plastics will replace natural leathers for shoe tops, for which artificial leathers are now unsatisfactory because they do not allow moisture of the feet to penetrate and escape.

Food crops, thanks to chemical modification of plant metabolism, will have the plant size dwarfed and the fruit, kernels or ears are larger, Dr. Adams foresees. Chemicals that speed the growth of plants will be improved so that pears, apples and oranges will be the size of grapefruit.

The ultimate in insecticides, visualized by Dr. Adams, is a chemical, repellent to all insects and mites, innocuous to the plant and to higher animals, which when sprayed on the leaves will be absorbed and completely translocated by means of the plant juices. To feed plants, he suggests that a combination of minerals and fertilizer be absorbed through the leaves instead of fertilizing the soil.

Chemicals will be available in the future to sterilize the soil completely toward grasses and weeds but not toward the desired crop.

Oceans will furnish more of the world's food in the future, Dr. Adams believes, and there will be a more systematic fishing industry than at present with fish ranches, large water areas fenced off and handled like cattle ranches. Marine plants for food, fuel or chemical use will be grown and harvested like land crops.

Chemicals to kill the viruses that cause such stubborn diseases as colds, poliomyelitis, meningitis, influenza, virus pneumonia, mumps and measles will be found in the next decades, Dr. Adams predicted. The organic chemist will succeed in providing products which will eliminate susceptibilities toward the degenerative diseases, such as cancer, heart disease, and arteriosclerosis.

Since hormones and other drugs affect the mental attitude as well as the physical well-being of people, Dr. Adams forecast that the future may bring us a series of drugs which will permit deliberate molding of a person, mentally and physically. Control of such chemicals would be a great public problem. They would present dire potentialities in the hands of an unscrupulous dictator.

As to interplanetary rocket flights, Dr. Adams considered predictions in this field outside his specialization of chemistry. But he did call attention to the need of dining compartments of enormous size for a trip to Jupiter that would need 666 days, even if food concentrates were used and people require less food under gravity-free conditions. Perhaps there will be celestially-anchored hot-dog stands along the way. But, in his opinion, it will be many, many decades before rocket ships are built that will accelerate to the 25,000 miles an hour required to escape from earth's gravity.

Science News Letter, January 5, 1952

ASTRONOMY

Star Light Changed By Cosmic Iron Dust

► LIGHT FROM many of the stars in the constellation of Aquila, the eagle, vibrates slightly more in one direction than in another.

Light from at least two-thirds of the 300 faint stars within a half square degree area

in Aquila is polarized to at least 1.5%, Joseph L. Gossner of the U. S. Naval Observatory told members of the American Astronomical Society meeting in Cleveland.

These stars are so far from the earth that light which started from them some 1,000 or more years ago is just now reaching our planet. At some time in its journey the light passed through a dust cloud containing many iron particles which polarized it. Light from stars in this constellation that are closer to us has not been polarized.

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