

NUTRITION

Synthetic Vitamins Help

Dr. Robert R. Williams, vitamin researcher, tells role of synthetic vitamins on receiving the Perkin Medal. They should improve staple foods.

➤ **SYNTHETIC** vitamins may help save mankind from the Malthusian disaster of increasing faster than its food supply can, Dr. Robert R. Williams, noted vitamin researcher and director of research of the Research Corporation, declared on receiving the Perkin Medal.

The medal is awarded jointly by the Society of Chemical Industry, the American Chemical Society, the American Institute of Chemical Engineers and the Electrochemical Society.

The synthetic vitamins can play their part if used to make more nourishing the staple foods of the world, as white flour in the United States is made more nourishing by enrichment with synthetic vitamins, Dr. Williams explained.

He termed "perfectionists" those who argue for use of whole grains rather than fine milling which removes vitamins that have to be restored to make the product as nourishing as the original.

"If one were feeding dumb animals which are without means of effective protest this might well be the answer," he said. "Humans, however, will normally eat what they like and raise hell if deprived of it."

Enrichment of white bread and flour,

at a cost of about 20 cents per capita, he regards as cheap insurance for substantially all Americans against deficiencies of the nutrients added.

On the subject of taking vitamin pills, he pointed out that they are "harmless and we can safely leave to the public to decide how much benefit it derives and how much it is willing to pay for them."

"Many scientists use them and feel that they benefit from them," he added. "It is folly to assume blandly that human diets are quite adequate without them."

Anyone who thinks his own diet is adequate should try feeding it to rats, he suggested. The experimenter is almost certain to find that the rats fail to reproduce in the second or third generation.

A number of antivitamins are now known, he reported. Sulfanilamide was the first of these to be discovered. An antivitamin is believed to exist in corn which fakes the role of nicotinic acid but cannot do the work of this vitamin in preventing pellagra, long known to afflict persons living largely on corn.

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denying the light from distant stars.

Water vapor in the earth's atmosphere absorbs great chunks of the star's infra-red energy, but by "looking between the slats in the picket fence," useful observations can be made in the clear regions. The ability of infra-red light to penetrate haze has already been used to see the dim outlines of the distant nucleus of our galaxy which, though known for many years to exist, had always been invisible because of the interstellar dust clouds that blot out the ordinary light it emits.

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ASTRONOMY

Photocells Reveal Heavens

➤ **MANY DETAILS** of the heavens, never seen by man, can now be revealed through the use of photocells sensitive to red light far beyond the region visible to the human eye or that detectable by the best photographic plate. These cells will help us lift the veil that now hides some of the secrets of our universe behind interstellar clouds and will enable us to observe invisible or "dark" stars.

We may "see" many details of the Milky Way system, previously hidden, through use of lead-sulfide cells, effective in the infra-red region of the spectrum far beyond where the human eye can penetrate, Dr. A. E. Whitford of the Washburn Observatory, University of Wisconsin, reported to the American Astronomical Society—Harvard Observa-

tory Centennial in Cambridge.

The lead-sulfide photoconductive cell developed during the war by Dr. R. J. Cashman of Northwestern University is sensitive out to a region whose wavelength is five or six times that of yellow light, and two or three times that of useful infra-red-sensitive photographic plates, Dr. Whitford stated.

"Cool" stars only a few hundred degrees hotter than a flatiron can be examined with this instrument in that part of the spectrum where they shine best, for only a very small percentage of the energy from these stars is in the form of visible light. The cell's sensitivity to infra-red light may give important data on the nature of interstellar dust particles through a study of their effects in red-