

BOTANY

Photosynthesis Clue

Problem of how plants make food is a step nearer solution as the result of research using carbon 14 to trace food of photosynthetic bacteria.

► THE PROBLEM of how plants manufacture food by alternate use of light and darkness has been brought one step nearer solution, Drs. Martin D. Kamen, Samuel J. Ajl, Stanley L. Ranson and Jack M. Siegel, of the Washington University Medical School, St. Louis, report to the journal, *SCIENCE* (March 16).

Working in the university's departments of radiology and bacteriology, the doctors have used radioactive carbon 14 to trace the path of different parts of food compounds fed to photosynthetic bacteria, and found that their fate differs when fed in a dark room or in the light. Little difference is observed in the dark whether the

labelled carbon 14 was originally in one part of the compound or another. But when the bacterium, *Rhodospirillum rubrum*, is allowed to carry on its activities in the light, a difference is noted in the products it manufactures from the individual parts of the food compound.

During the hours of darkness, the organism seems to build carbon into its structure in the form recognized by chemists as carbonate. During the period when light shines on it, more direct assimilation of carbon into more complex compounds is carried on. Researches to follow this compound building further are being continued by the research team.

Science News Letter, March 24, 1951

MEDICINE

Gland Chemicals for Aged

ACTH and cortisone are good medicine even for those who do not have painful arthritis. Will help those with injuries to get up and about sooner.

► ACTH and cortisone are good medicines for old people even if they do not have painful crippling arthritis. This is the complaint for which these gland chemicals have mainly been used in the two years since their discovery.

The new use of these chemicals and a way to make a small dose of the scarce supply go farther was reported by Dr. George Thorn, Harvard medical professor, at a conference sponsored by Smith, Kline and French Laboratories, Philadelphia pharmaceutical firm.

Dr. Thorn suggested ACTH and cortisone for old people who have suffered painful injuries which did not involve broken bones but which would keep them in bed when it would be better to have them up and about. A five- or ten-day course of the gland chemical treatment will help get them up and moving sooner, he finds.

Old patients who are poor risks for surgery can be given a short course of ACTH or cortisone to get them ready for any needed operation. The drug in these cases acts like a tonic. It makes old people feel better, gives them better appetites and generally gets them in better shape.

Elderly patients with thrombophlebitis, allergic asthma, chronic skin disorders and inflammatory eye conditions can also be

helped by short courses of ACTH or cortisone.

The way to make a small amount of ACTH go farther, Dr. Thorn said, is to

give an infusion into the veins over a six-hour period. With this method a 20-milligram dose becomes the equivalent of about eight to 10 times that amount, he said.

Science News Letter, March 24, 1951

METEOROLOGY

Spring Is To Start Colder Than Usual

► THE BEGINNING of spring will be colder than usual this year. The Weather Bureau's Extended Forecast Section says that temperatures will average below seasonal normal up to mid-April, except in the Northeast and Southwest. In those areas the weather will be near or above normal in temperature.

Jerome Namias, chief long-range forecaster, declared that this was the most difficult 30-day predicting job he had ever done. The balance is delicate, he said, and it can go one way or the other.

It will be a rainier than usual month in the Midwest and the Pacific Northwest. The rest of the nation will have either the usual amounts of rain, or less than usual.

Science News Letter, March 24, 1951

Iguassu Falls, on the border of Argentina and Brazil, surpass Niagara Falls in both height and width.

For every 100 women dying of cancer in 1900 there were only 60 male deaths; today more men die of cancer than women.

The colored peccary of Arizona, not a pig but sometimes called a wild one, is at home among the desert cactus or mountain evergreens.

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