

MEDICINE

Sun Tan Pills Safe

► **TAKING SUN** tan pills seems to be safe.

Several months ago, the Upjohn Company began manufacturing a "sun safe" tablet that dermatologists could prescribe for sun lovers who had previously found sol's rays too damaging for their skin. The drug, given the nod by the Food and Drug Administration, is methoxsalen (8-methoxypsoralen) named Meloxine by Upjohn. The Paul B. Elder Company of Bryan, Ohio, is manufacturing the drug under its own tradename Oxsoralen.

Meloxine has the unique property of increasing tolerance to the sun, even in albinos who are extremely susceptible to sunlight, and at the same time enhancing pigmentation of the skin and affording protection against burning.

The effective ingredient is an extract from a weed called ammi-majus that grows in Egypt along the Nile River.

Dr. Harold Tucker of the Upjohn clinical investigation division said that the newly developed drug, in tablet form, will enable most persons, including those with fair complexions, to achieve a sun tan without painful burning. Recommended dosage is two tablets a day, taken two hours before

brief, measured exposure to sun or ultraviolet light. Protection against sunburning can be built up by most persons within four to seven days if they follow this regimen.

Dermatologists who have prescribed the sun tan pills have reported that many of their patients that formerly were unable to venture out in the intense sun, can now enjoy a normal life, free from the effects of severe sunburn.

Tests to establish the safety of the pills have been reported in the *Journal of the American Medical Association* (July 26) by Dr. Thomas B. Fitzpatrick, Dr. Daniel Labby, and J. Donald Imbrie of the University of Oregon Medical School, Portland.

The investigators found that the persons who regularly took the sun tan pills exhibited no liver damage, contrary to expected results.

In addition, tests of the drug's effect on the liver have been made at the District of Columbia General Hospital. No abnormalities of liver function have been found among those patients who have been receiving the pills. This information has not yet been published in a medical journal.

Science News Letter, August 16, 1958

ENGINEERING

Wider Highways Needed

► **ENGINEERS** who are designing highways to be built in the immediate future, particularly those roads that will be a part of the Federal highway system, have been urged to think in terms of 1980 traffic demands in their present designs.

A structural design committee of the American Concrete Institute, Chicago, urged that roads to be built immediately should be at least 24 feet wide in order to match the 12-foot-wide lanes expected to be featured on all 1980 highways.

This would eliminate a danger common at present, reported committee chairman E. A. Finney, director of the Highway Research Laboratory, Michigan State Highway Department, Lansing.

"The transition from 12-foot lanes on expressways to 11-foot lanes on other sys-

tems creates a driving hazard," he said, adding that the extra foot per lane also contributes to the structural strength and economic life of the pavement.

Besides the wider lanes, the committee urged that all road shoulders be paved to improve performance, increase the strength and extend the life of the highways, and to provide greater safety and mobility convenience to motorists. The committee's view was supported by road test results, the report stated.

A problem yet to be solved is the rapidity with which concrete and other modern pavement surfaces become slippery when wet. The solution, the committee feels, may require an entirely new concept in pavement mixes.

Science News Letter, August 16, 1958

PHYSIOLOGY

Thyroid Helps Beat Heat

► **LARGE THYROID** glands may be good things to have when the mercury soars above 95 degrees Fahrenheit.

Research with chicks conducted at the U. S. Department of Agriculture's research center, Beltsville, Md., suggests that the thyroid acts to protect the birds against high temperatures. Tests by USDA scientists M. H. Conner, Henry Menge and Hajime Ota showed differences in mortality rate, body weight, and adrenal and thyroid gland

size when chicks with large thyroids and with small thyroids were subjected to high temperatures.

Using chicks especially bred for difference in thyroid size, the scientists report the small-thyroid birds had a 33% higher mortality rate when exposed to a constant temperature of 100 degrees Fahrenheit. At this temperature, surviving small-thyroid birds had lost both body and thyroid weight. They also had "much adrenal en-

largement," while the large-thyroid chicks did not.

At temperatures above 100 degrees, however, even large-thyroid birds suffered reduced body growth and thyroid size.

This basic research is contributing to understanding how endocrine glands of chickens function under extreme environmental conditions.

Research so far, the scientists conclude, points to the fact that the "thyroid gland may be more important than the adrenal gland in helping chicks resist death from too much heat. The adrenal gland, however, is more important in other cases."

Science News Letter, August 16, 1958

SCIENCE NEWS LETTER

VOL. 74 AUGUST 16, 1958 NO. 7

Edited by WATSON DAVIS

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington 6, D. C., NOrth 7-2255. Cable Address: SCIENSERV.

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; ten or more copies in one package to one address, 7½ cents per copy per week; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage.

Change of address: Three weeks notice is required. When ordering a change please state exactly how magazine is now addressed. Your new address should include postal zone number if you have one.

Copyright © 1958 by Science Service, Inc. Reproduction of any portion of SCIENCE NEWS LETTER is strictly prohibited. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicated services issued by Science Service. Science Service also publishes CHEMISTRY (eight times a year) and THINGS of Science (monthly).

Printed in U.S.A. Entered as second class matter at the post office at Washington, D. C., under the act of March 3, 1897. Acceptance for mailing at the special rate of postage provided for by Sec. 34.40 P. L. and R., 1948 Edition, paragraph (d) (act of February 28, 1925; 39 U. S. Code 283) authorized February 28, 1950. Established in mimeograph form March 13, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Reader's Guide to Periodical Literature, Abridged Guide, and the Engineering Index. Member Audit Bureau of Circulation.



SCIENCE SERVICE

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: William W. Rubey, U. S. Geological Survey; Wallace R. Brode, National Bureau of Standards; Douglas Whitaker, Rockefeller Institute for Medical Research. Nominated by the National Academy of Sciences: Edward U. Condon, Washington University; Harlow Shapley, Harvard College Observatory; Philip Bard, Johns Hopkins University. Nominated by the National Research Council: I. I. Rabi, Columbia University; Leonard Carmichael, Smithsonian Institution; John R. Dunning, Columbia University. Nominated by the Journalistic Profession: O. W. Riegel, Washington and Lee University; Michael A. Gorman, Flint Journal; Lee Hills, Detroit Free Press. Nominated by the Scripps Estate: Edward J. Meeman, Memphis Press-Scimitar; Frank Ford, Washington, D. C.; Charles E. Scripps, Cincinnati, Ohio.

Officers — President: Leonard Carmichael; Vice President and Chairman of Executive Committee: Charles E. Scripps; Treasurer: Wallace R. Brode; Secretary: Watson Davis.

Staff — Director: Watson Davis. News Editor: Howard Simons. Writers: Marjorie Van de Water, Ann Ewing, Jane Marye, David Pursglove, Benita Tall, Helen Buechl. Science Youth Division: Harold A. Edgerton, Joseph H. Kraus, Dorothy Schriver, Shirley Moore. Photography: Fremont Davis. Production: Priscilla Howe, Marcia Nelson. Syndicate Sales: Hallie Jenkins. Interlingua Division in New York: Alexander Gode, 80 E. 11th St., Gramercy 3-5410. Advertising Manager: Fred A. Moulton, MEtropolitan 8-2562.