

If a ringworm lesion is treated locally with pelargonic acid or other fungicidal agent, the spread of the lesion is checked immediately because the spread from one hair to another via follicular wall to surface of scalp, and from there into the inner follicular wall of the next hair and into the hair shaft, is inhibited. Hence, it can be concluded that local treatment of exposed but noninfected children, in schools, orphanages, and other places where children congregate in numbers, will effectively check the spread of epidemics. Whether such prevention is practicable has not yet been investigated.

Summary. With onset of puberty, the sebaceous glands of the scalp start to secrete a sebum which contains, in higher concentration than before, low-boiling saturated fatty acids with selective fungistatic and fungicidal action on *M. audouini*. Highly active normal aliphatic monobasic acids having odd numbers of carbon atoms, including pelargonic acid, have been isolated from hair fat of adults. The "adult type" of hair fat does not kill the fungus spores within the hair but prevents infection of the new hair following the old infected hair in the process of shedding.

Detailed reports are to be published elsewhere.

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Inhibition of the Catalyzed Thermal Decomposition of DDT

FRANCIS A. GUNTHER and LOIS R. TOW

*University of California Citrus Experiment Station,
Riverside*

Laboratory (2, 3, 4, 14) and field (2, 11) studies indicate that insecticidal preparations containing DDT may decompose thermally unless specifically protected from exposure to even moderately high temperatures. Evidence to the contrary has been published (1, 12, 13). Under field conditions, however, DDT as such may disappear so rapidly as to preclude mere evaporation (5) from consideration, particularly when a considerable residue of the almost noninsecticidal dehydrohalogenation product is demonstrable (10). The iron-catalyzed dehydrohalogenation of DDT has been amply verified (1, 2, 6-9). Because most technical DDT contains traces of iron or iron salts by the time it reaches the surface being treated, it seemed worth while to present this brief preliminary report upon two substances found to inhibit the iron-catalyzed thermal decomposition of DDT. The full details underlying this study will be reported elsewhere.

Picolinic acid (GD 2100)¹ and salicylal-amino-guanidine (GD 2101)¹ are the two inhibitory substances. When 1.5 per cent of ferric nitrate, 2 per cent of either inhibitor, and 96.5 per cent of iron-free technical DDT of setting point 90.1° C. were mixed intimately and heated 24 hours at 110-120° C., the resulting dehydrohalogenation was negligible (1.0 per cent for GD 2100; 2.5 per cent for GD 2101). Without inhibitor, the resulting dehydrohalogenation was complete under the same conditions. In Fig. 1 is

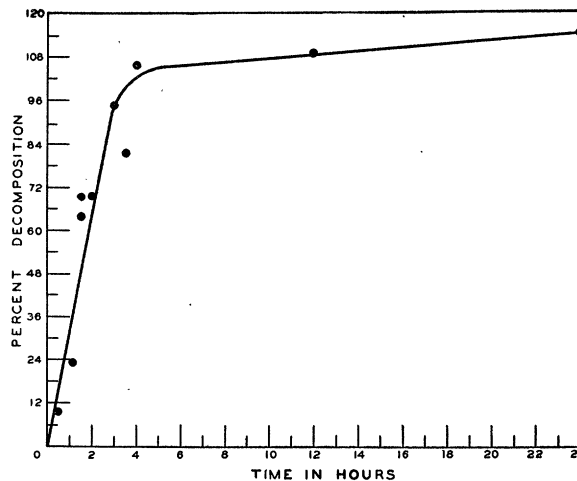


FIG. 1. Rate of decomposition (dehydrohalogenation) of technical DDT plus ferric ion as dehydrohalogenation catalyst at 110-120° C.

shown a plot of the rate of thermal dehydrohalogenation of the technical DDT plus ferric ion. The rate of dehydrohalogenation curves for similar mixtures plus the inhibitors, within the concentration range 2-20 per cent, were so nearly superimposable horizontal straight lines that they could not be plotted satisfactorily. Still lower concentrations of inhibitor may be equally effective, although this possibility has not been investigated.

That the inhibition of the iron-catalyzed thermal decomposition of DDT is not attributable solely to mere buffer action is evinced by extensive dehydrohalogenation in the presence both of calcium dihydrogen phosphate and of sodium carbonate. The effects of sunlight and weathering upon these two organic inhibitors are under investigation in field tests and will be reported elsewhere.

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¹ Covered by U. S. Patent 2,363,778 as metal deactivators and issued to C. J. Pedersen. Samples of these compounds were very generously supplied by H. C. Stecker, of E. I. du Pont de Nemours and Company, Wilmington, Delaware.

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News and Notes

About People

James B. Conant is among those upon whom honorary degrees will be conferred by the University of London in November. Others are: E. D. Adrian, Sir Henry Dale, R. A. Fisher, Sir Geoffrey Taylor, and C. T. R. Wilson. The ceremony will take place in connection with the celebration of Founders' Day.

Joseph Erlanger became emeritus professor of physiology at Washington University School of Medicine, St. Louis, on 1 July. At Washington University over 30 years of work on various aspects of circulatory physiology and a series of researches on the mechanism and treatment of shock were carried out in Dr. Erlanger's laboratories. His work led to the Nobel Prize in Medicine in 1944.

H. K. Wilson, head of the Department of Agronomy, The Pennsylvania State College, has been appointed vice-dean and director of Resident Instruction. At present he is filling both positions.

R. A. Fisher, professor of genetics at the University of Cambridge, returned to England on 16 August after spending two months as visiting professor at North Carolina State College, Raleigh. Formerly Dr. Fisher was chief statistician at the Rothamsted Experiment Station, Harpenden, Herts, England, and Galton professor of eugenics at University College, University of London.

Albert M. Stone, formerly with the Radiation Laboratory, Massachusetts Institute of Technology, has been appointed as a physicist in the London office of the Office of Naval Research. Dr. Stone will serve in a liaison capacity between European and American physicists. A former assistant professor of physics at Montana State College, Dr. Stone has most recently served on the Editorial Board for the Radiation Laboratory series of technical monographs.

George H. Ashley, chief of the Pennsylvania Bureau of Topographic and Geologic Survey, will retire on 31 August at the age of 80. He will be succeeded for the last quarter of the year by his associate, Ralph W.

Stone, who will himself retire in December at the age of 70.

Arthur G. Kevorkian is leaving on 30 August for Cienfuegos, Cuba, to become director of the Atkins Garden and Research Laboratory and lecturer on tropical botany.

F. W. Aston, Trinity College, Cambridge, who died 20 November, left 1,000 pounds and his scientific apparatus to the Cavendish Laboratories; 4,000 pounds to the president and Council of the Royal Society for general purposes; 1,000 pounds each to Birmingham University, the British Association for the Advancement of Science, and the Cambridge Preservation Society; and 500 pounds each to the Cambridge Philosophical Society, the Fitzwilliams Museum, and the Malvern College, according to the *Times*, London.

Roger Adams, department of chemistry, University of Illinois, member of the Science Policy Committee, and chairman of the American Chemical Society Board of Directors, will receive the Priestley Medal 11 September at the Society's 110th meeting in Chicago. The Priestley Medal, established in 1922, is granted for "distinguished services to chemistry" by the society and has been won, among others, by James B. Conant, Thomas Midgley, Jr., William A. Noyes, also of Illinois, Charles L. Parsons, and former President Ira Remsen of Johns Hopkins.

This honor is the fourth occasion upon which Dr. Adams has been cited this year. He earlier was presented with the Davy Medal of the Royal Society, London, the Theodore William Richards Medal of the Northeastern Section of the Chemical Society, and was selected to give the first Remsen Memorial Lecture at Johns Hopkins University.

Announcements

Recent appointments to the faculty of the University of Michigan have been announced as follows: J. Speed Rogers will become director of the Museum of Zoology and professor in the Department, effective 1 January 1947. Dr. Rogers has been on the faculty