Alexander Shalom Tahori (1919-2013)

(2010)

Alexander Shalom Tahori was born on 1919 in Memel, Lithuania. He immigrated to Israel in 1938, and attended the Mikve-Israel School of Agriculture where he took advanced courses in agriculture. In 1940, Tahori began to study biology at the Hebrew University--this period of study lasted only one year, because, when the British army established the Jewish Brigade, Tahori left the university to join the British army. He served until the end of World War II, in 1946 he returned to the Hebrew University for another year. He then moved to the University of California at Berkeley, for advanced studies, obtaining a M.Sc. degree and completing his Ph.D. in 1951.

After World War II, reports about the amazingly successful insect control with the new insecticide DDT led many entomologists to believe that the problems of insect control were solved. However, already in 1947-1950, several reports that houseflies had developed resistance to DDT appeared in the scientific literature. In 1950, it was demonstrated that the resistance to DDT was at least partly due to a conversion of the DDT to the non-toxic compound DDE. Prof. W. M. Hoskins, under whom Tahori conducted his thesis, requested that Tahori study the distribution and the fate of DDT in the housefly body. Tahori found that flies metabolize DDT to DDE and to additional unknown components, and that DDE is further degraded to other unknown substances. Tahori's thesis influenced his future research in Israel – where he studied various aspects of preventing development of resistance to various insecticides.

On his return to Israel in 1951, Tahori joined the Israeli Defense Forces, and was assigned to the Army Medical Research Institution as head of Department of Entomology. During that period a very serious epidemic of West Nile virus was spreading

throughout Israel. The virus was isolated from the mosquito, *Culex molestus,* by N. Goldblum. However, in order to demonstrate that *C. molestus* was its vector, it had to be shown that it could transmit the virus to a healthy host. Subsequently, Tahori's laboratory work demonstrated that (Journal of Tropical Medicine and Hygiene, 1955 4 1015-1027). Together with the chemists at the Army Medical Institute, Tahori also discovered several DDT analogs synergistic with DDT (Nature, 1958 179 324-325).

In 1957, Tahori moved from the Army Medical Research Institution to the Israel Institute of Biological Research at Ness-Ziona, where he served as the head of the section of insect toxicology. Also, in 1957, Tahori was invited as a visiting professor to teach insect toxicology at the Faculty of Agriculture at the Hebrew University at Rehovot. He did that for many years. As there was no Hebrew book dealing with the subject, Tahori wrote a whole course in Hebrew, which was used by the students for many years.

Tahori's research during these years concentrated on ecological factors affecting development of resistance to various pesticides and acaricides and to compounds protecting plants from insect attack.

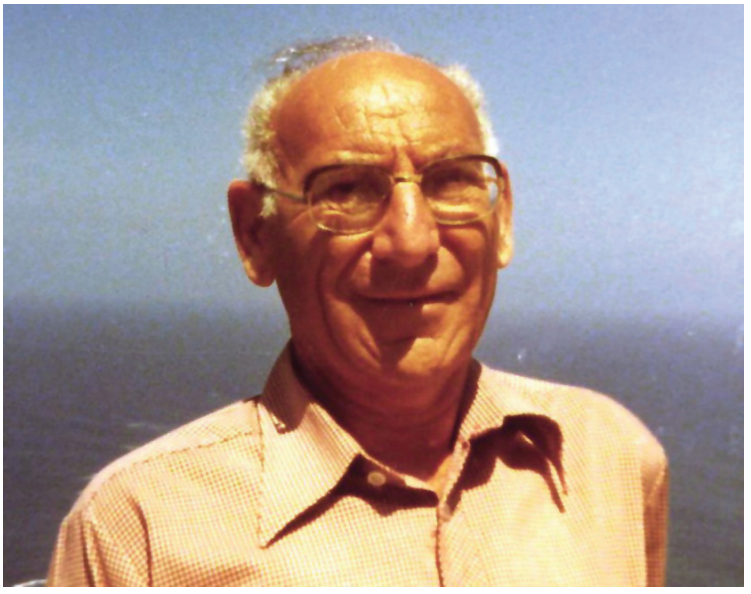
In 1971, Tahori served as a scientific secretary of the Second International Congress of Pesticides, and was the editor of the International Union of Pure and Applied Chemistry symposium on terminal pesticides residues. He was the editor of all the seven books that this congress yielded. The experience of editing served him later when he became a scientific director of ICIPE (the International Center of Insect Physiology and Ecology) in Nairobi, Kenya, from 1979-1981, during which every paper sent to a science journal from the institute was carefully edited by him. The Entomological Society of Israel also benefitted from this talent in the years 1966-1977, when Tahori served as the editor of the Israeli Journal of Entomology.

One more important discovery in which Tahori had an important part, was the discovery of *Bacillus thuringiensus israeliensis* (*B.t.i*) by Joel Margalit. Tahori obtained a German grant to work on biological enemies of mosquitoes, and Margalit was hired to carry out the field work. Margalit found dead larvae in Soreq River, from which this *Bacillus* was isolated. This *Bacillus* was fatal to all nematoceran larvae and it became an important tool in their control worldwide. Although Tahori continued to help Margalit in commercializing *B.t.i,* he never insisted on having his name on Margalit's major publications dealing with this subject.

Tahori passed away on 3 April 2013. He is survived by his wife Hava, two sons Michael and Dani, and three grandsons.

May his soul rest in peace.

Professor Rachel Galun
Ramat Gan, Israel



(1980)

(1987)

PUBLICATIONS

This is as complete a list of the publications of Alexander Shalom Tahori as could be compiled at this time. There is a chance there may be a few other publications that were missed. Co-authors are listed in brackets after the citations in the correct order of publication with AST used to denote Alexander Shalom Tahori.

1949 *Investigation on a sampling method for insecticidal clouds*. University of California, Berkeley, 96pp. [? M.Sc. thesis]

1952 *The face and distribution of DDT in the body of the housefly*. University of California, Berkeley, 274pp. [? Ph.D. dissertation]

1952 Toxicity of new insecticides to humans. *Hassadeh* 32: 560-562. (in Hebrew)

1953 The absorption, distribution and metabolism of DDT in resistant houseflies. Part I. *Journal of Economic Entomology* 46: 302-306. [AST and Wm. M. Hoskins]

1953 The absorption, distribution and metabolism of DDT in resistant houseflies. Part II. *Journal of Economic Entomology* 46: 829-832. [AST and Wm. M. Hoskins]

1954 Chemicals affecting the preimaginal stages of the housefly. *Revista di Parassitologia* 15: 45-55. [K. Ascher, Z. Levinson, P. Silverman and AST]

1955 Studies on the dynamics of experimental transmission of West Nile virus by *Culex molestus*. *American Journal of Tropical Medicine and Hygiene* 4:1015-1027. [AST, V. V. Sterk and N. Goldblum]

1955 A new group of DDT synergists. *Nature* 171: 266-267. [E. D. Bergmann, AST, A. Kaluszyner and S. Reyter]

1955 Diaryl-trifluoromethyl-carbinols as synergists for DDT against DDT-resistant houseflies. *Journal of Economic Entomology* 48: 638-642.

1955 Studies in the natural history of West Nile Fever. *Bulletin of the Research Council of Israel* 4: 207. [V. V. Sterk, AST and N. Goldblum]

1956 On the mechanism of DDT-resistance. *Revista di Parassitologia* 17: 125-127. [S. Reuter, S. Cohen, R. Meshoulam, A. Kaluszner and AST]

1957 Mode of action of di-(p-chloro phenyl) trrifluoro-methyl-carbinol as synergist to DDT. *American Journal of Food and Agricultural Chemistry* 5: 519-523. [S. Cohen and AST]

1957 Insects as disease vectors. *Symposium on Insecticides*. *Research Department, Ministry of Defense,* 17-21. (in Hebrew)

1958 Resistance of the spiny boll worm to endrin in Israel. *Nature* 179: 324-325 [K.R. S. Ascher and AST]

1958 DDT-analogs as synergists for DDT. *Experimentia* 14: 25-26. [AST, S. Cohen and A. Kaluszyner]

1958 Biochemistry of insect resistance to DDT. *World Health Organization/Insecticides* 76: 120-137.

1958 Effects of caffeine and other purines upon the ribonucleic acid ratio in leaves, and the suitability of these leaves for aphids. *Nature* 181: 1595-1596. [B. Kessler, E. Swirski and AST]

1959 Effects of purines upon the nucleic acids and nitrogen metabolism of leaves and their sensitivity to aphids. Israel *Journal of Agriculutral Research (Ktavim)* 9: 265-274. [B. Kessler, E. Swirski and AST]

1959 *Insect Toxicology*. Akadimon Press, Jerusalem, 75pp. (in Hebrew)

1959 Caterpillar dermatitis. *Israel Medical Journal* 18: 26-31. [L. Ziprkowski, E. Hofschi and AST]

1959 Resistance of insects to insecticides. *Mada* 3: 34-36. (in Hebrew)

1959 The influence of purines on nucleic acids and plant sensitivity to aphids. *Ktavim* 9: 257-264. (in Hebrew) [B. Kessler, A. Swirsky and AST]

1959 Skin Urticaria caused by insect larvae. *Harefua* 56: 139-141. (in Hebrew) [A. Ziprkowski, E. Hofshi and AST]

1959 Isecticide residues in foodstuff. *Tavruah* 15: 9-13. (in Hebrew)

1960 The larvacidal effect of phenylthiourea against resistant and susceptible housefly strains. *Bulletin of the World Health Organization* 22: 584-585.

1961 A method for selection for DDT-susceptibility. *Journal of Economic Entomology* 54: 611.

1961 A survey of *Culex molestus* larvae in Israel for DDT resistance. *Bulletin of the World Health Organization* 24: 674-675.

1961 Mode of actuion of insecticides. *Tavruah* 22: 25-29. (in Hebrew)

1962 Control of *Aleuroglyphus ovatus* in flea cultures. *Bulletin of Entomological Research* 53: 257-264 [S. Sternberg and AST]

1963 Selection for a fluoroacetate resistant strain of houseflies and investigation of its resistance pattern. *Journal of Economic Entomology* 56: 67-69.

1963 Control of insects by the sterile male technique. *Mada* 7: 47-49. (in Hebrew)

1964 Studies on the biochemisry of fluoroacetate resistance in houseflies. *Israel Journal of Chemistry* 2:320-321. [M. Zahavi, AST and S. H. Kindler]

1965 Phosphon (2, 4-dichlorobenzyltributyl phosphonium chloride) as insect anti-

feeding compound. *Naturwissenschaften* 52: 191-192. [AST, G. Zeidler and A. H. Halevy]

1965 Citric acid accumulation with age in houseflies and other Diptera. *Journal of Insect Physiology* 11:811-816. [M. Zahavi and AST]

1965 The effect of Phosphon (2, 4-dichlorobenzyltributyl phosphonium chloride) as a housefly sterilant. *Naturwissenschaften* 52: 400. [AST, G. Zeidler and A. H. Halevy]

1965 The effect of some plant growth retardants on the oleander aphid *Aphis nerii* (Boyer). *Journal of the Science of Food and Agriculture* 16: 568-569. [AST, A. H. Halevy and G. Zeidler]

1965 The effect of some plant growth retardants on the feeding of the cotton leaf worm. *Journal of the Science of Food and Agriculture* 16: 570-572. [AST, G. Zeidler and A. H. Halevy]

1965 The effects of some plant growth retarding compounds on three fungi and a viral disease. *Plant Disease Reporter* 49: 775-777. [AST, G. Zeidler and A. H. Halevy]

1966 Resistance pattern of a fluoroacetate resistant fly strain. *Israel Journal of Entomology* 1: 179-182.

1966 Laboratory experiments with a new group of organo-phosphorus insecticides on some agricultural insects. *Journal of Economic Entomology* 59: 196-201 [AST and S. Sternberg]

1966 Anticholinesterase activity (in the Mediterranen fruit fly) and mouse toxicity of some new organophosphorus compounds. *Entomologia Experimentalis et Applicata* 9: 99-104. [AST, S. Sternberg and J. Zahavy]

1966 Changes in the resistance pattern of a fluoroacetate resistant fly strain. *Journal of Economic Entomology* 49: 462-464.

1968 Studies on the biochemical basis of suseptibility and resistance of the housefly to fluoroacetate. *Biochimica et Biophysica Acta* 153: 787-798. [M. Zahavi, AST and J. Mager]

1968 Acetylcholinesterase sensitivity to organophosphorus compounds in sensitive and resistant mite strains. *Israel Journal of Chemistry* 6: 137. [M. Zahavi and AST]

1969 Variability in insecticide tolerance of eighteen honey bee colonies. *Entomologia Experimentalis et Applicata* 12: 85-98. [AST, Z. Sobel and M. Soller]

1969 Stimulatory effects of NAD on respiration and oxidative phosphorylation in housefly sarcosomes. *Israel Journal of Chemistry* 7: 142. [M. Zahavi, AST and J. Mager]

1970 Resistance to acaricides in the carmine spider mite in Israel. *Journal of Economic Entomology* 63: 545-548. [AST and B. Raccah]

1970 The effect of host nutrition on tolerance of the carmine spider mite to malathon. *Journal of Economic Entomology* 63: 567-570.

1970 Population dynamics of *Culex pipiens molestus* Forskål and of *Culex univittatus* Theobald in Israel. *Israel Journal of Entomology* 5: 141-150. [J. Margalit and AST]

1970 Species of mosquitoes found in Israel during a survey (1955-58). *Israel Journal of Entomology* 5: 251-160. [J. Margalit and AST]

1970 Sensitivity of acetylcholinesterase in spider mites to organophosphorus compounds. *Biochemical Pharmacology* 19: 219-225.

1970 Rearing black citrus aphid *Toxoptera aurantii* on chemically defined diets. *Journal of Insect Physiology 1*6: 1975-1985. [AST and A. Hazen]

1970 Differences in acetylcholinesterase-sensitivity to phosphamidon in Mediterranean fruit fly strains. *Israel Journal of Entomology* 5: 185-192. (M. Zahavi and AST]

1971 Effect of nutritional factors in synthetic diet on increase of alate forms of *Myzus persicae*. *Journal of Insect Physiology* 17: 1385-1390. [B. Raccah, AST and S. W. Applebaum]

1971 The effect of different host plants and of season on tolerance of the carmine spider mite to malathion. *Journal of Economic Enntomology* 64: 837-839. [B. Raccah and AST]

1971 Failures to induce diapause in an acaricide-susceptible strain of the carmine spider mite. *Israel Journal of Entomology* 6: 97-105. [A. Hazan, AST and U. Gerson]

1971 Insensitivity of aceytlcholinesterases to organophosphorus compounds as related to size of esteratic site. *Molecular Pharmacology* 7: 611-619. [M. Zahavi, AST and F. Kilmer]

1971 Notes on larval ecology of five prevalent Culicini in Israel. *Israel Journal of Entomology* 6: 315-322. [J. Margalit and AST]

1971 Culicinae survey in Israel by means of light traps. *Israel Journal of Entomology* 6: 323-325. [J. Margalit, AST and J. Nir]

1971 Wing dimorphism influencing resistance or toxicity tests and food uptake in *Myzus persicae*. *Entomologia Experimentalis et Applicata* 14: 310-314. [B. Raccah and AST]

1971 Chemistry of pesticides. *Harefua* 81: 45. (in Hebrew)

1971 Pesticide Terminal Residues. *Invited Papers from the International Union of Pure and Applied Chemistry Symposium*. Butterworths, London, 365pp. [AST, Ed.]

1971 Insect Resistance, Synergisms, Enzyme Induction. *Proceedings of the Second IUPAC Congress on Pesticide Chemistry. Its Pesticide Chemistry*. Gordon and Breach, New York, London, Paris, 302pp. [AST, Ed.]

1971 Chemical Releasers. *Proceedings of the Second IUPAC Congress on Pesticide Chemistry. Its Pesticide Chemistry*. Gordon and Breach, New York, London, Paris, 227pp. [AST, Ed.]

1972 Insecticides. *Proceedings of the Second IUPAC Congress on Pesticide Chemistry. Its Pesticide Chemistry*. Gordon and Breach, New York, London, Paris, 496pp. [AST, Ed.]

1972 Methods in Residue Analysis. *Proceedings of the Second IUPAC Congress on Pesticide Chemistry. Its Pesticide Chemistry*. Gordon and Breach, New York, London, Paris, 605pp. [AST, Ed.]

1972 Herbicides, Fungicides, Formulation Chemistry. *Proceedings of the Second IUPAC Congress on Pesticide Chemistry. Its Pesticide Chemistry*. Gordon and Breach, New York, London, Paris, 565pp. [AST, Ed.]

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1972 Activity of mitochondrial NAD-linked, isocitric dehydrogenase in alatiform and apteriform larvae of *Myzus persicae*. *Journal of Insect Physiology* 18: 609-614. [M. Zahavi and AST]

1972 An acetylcholinesterase sensitive to sulfhydryl inhibitors. *Biochimica et Biophysica Acta* 276: 577-583. [M. Zahavi, AST and F. Klimer]

1972 Effects of different sugars on the develoment and wing formation in the aphid *Myzus persicae*. *Israel Journal of Entomology* 7:21-26. [B. Raccah, AST and S. W. Applebaum]

1973 The mosquito fauna of Sinai. *Journal of Medical Entomology* 10: 89-96. [J. Margalit and AST]

1973 The role of folic acid in the appearance of alate forms in *Myzus persicae*. *Journal of Insect Physiology*19: 1849-1855. [B. Raccah, S. W. Applebaum and AST]

1973 Mosquitoes (Diptera: Culicidae) breeding in the Dead Sea Area. *Israel Journal of Zoology* 22: 27-37. [J. Margalit, M. Avrahami and AST]

1973 Immunological differences between an organophosphorus susceptible and resistant strain of *Tetranychus cinnabarinus*. *Israel Journal of Entomology* 8: 153-165. [S. Ben-Efraim, G. Halperin and AST]

1973 Dihydrofolate reductase activity in larvae of *Myzus persicae*. *Insect Biochemistry* 3: 367-371. [B. Raccah, S. W. Applebaum and AST]

1974 An annotated list of mosquitoes of Israel. *Israel Journal of Entomology* 9: 77-91. [J. Margalit and AST]

1974 Life history and life tables of the ermine spider mite. *Acarologia* 15: 414-440. [A. Hazan, U. Gerson and AST]

1974 Spider mite webbing III. – Solubilisation and amino acid composition of the silk protein. *Comparative Biochemistry and Physiology* 51B: 457-462. [A. Hazan, A. Gertler, AST and U. Gerson]

1974 Resistance of insect to insecticides. *Mada* 18: 297-301. (in Hebrew)

1975 Spider mite webbing 1. The production of webbing under various environmental conditions. *Acarologia* 15: 68-84. [A. Hazan, U. Gerson and AST]

1975 Spider mite webbing II. – The effect of webbing on egg hatchability. *Acarologia* 17: 270-274. [A. Hazan, U. Gerson and AST]

1975 Quantitative evaluation of the feeding of the carmine spider mite *Tetranychus cinnabarinus* (Boisd.) (Acari: Tetranychidae). *Bulletin of Entomologicl Research* 65: 515-521. [A. Hazan, U. Gerson and AST]

1975 Acaricides and resistance of ticks to acaricides. *CIAT, Seminario Sobre Ectoparasites, Agosto 25 a 30,* 1975: 13-18.

1976 The rise and fall of DDT. *Israel Journal of Entomology* 11: 33-51. [AST and R. Galun]

1976 A new Quinoline-carbamate aphicide. *Experimentia* 32: 1027-1029. [W. J. Esser, W. J. Kloft and AST]

1981 Vector control: Appraisal and future perspectives, pp. 173-176. In: Irvin, A.D., Cunningham, M. P. and Young, A. S. (eds.). *Advances in the Control of Theileriosis; Current Topics in Veterinary Medecine and Animal Science*, *14*. Martinus Nijhoff Publishers, The Hague, 427pp. [R. W. Sutherst and AST]

1988 Geograhical, seasonal and ecological distribution of mosquito larvae (Diptera: Culicidae) in Southern Israel. *Archiv für Hydrobiologie* 112: 233-249. [J. Margalit, Ch. Dimentman and AST]