

TABLE I  
Comparison of sympatholytic activity on rats  
isolated seminal vesicle

Adrenalin contraction in mm.		Reduction of height in mm.	% reduction	Dose in mg. per 15 ml. bath
Before	After			
Sample A				
44	38	6	18	0.2
44	28	16	36	0.4
40	17	23	57.5	0.6
41	13	28	68	0.8
45	8	37	82	1.0
Sample B				
44	32	12	27	0.2
44	27	17	38.5	0.4
39	11	28	70	0.6
42	11	31	74	0.8
44	7	37	84	1.0

A—Laboratory Standard; B—The Test Substance.

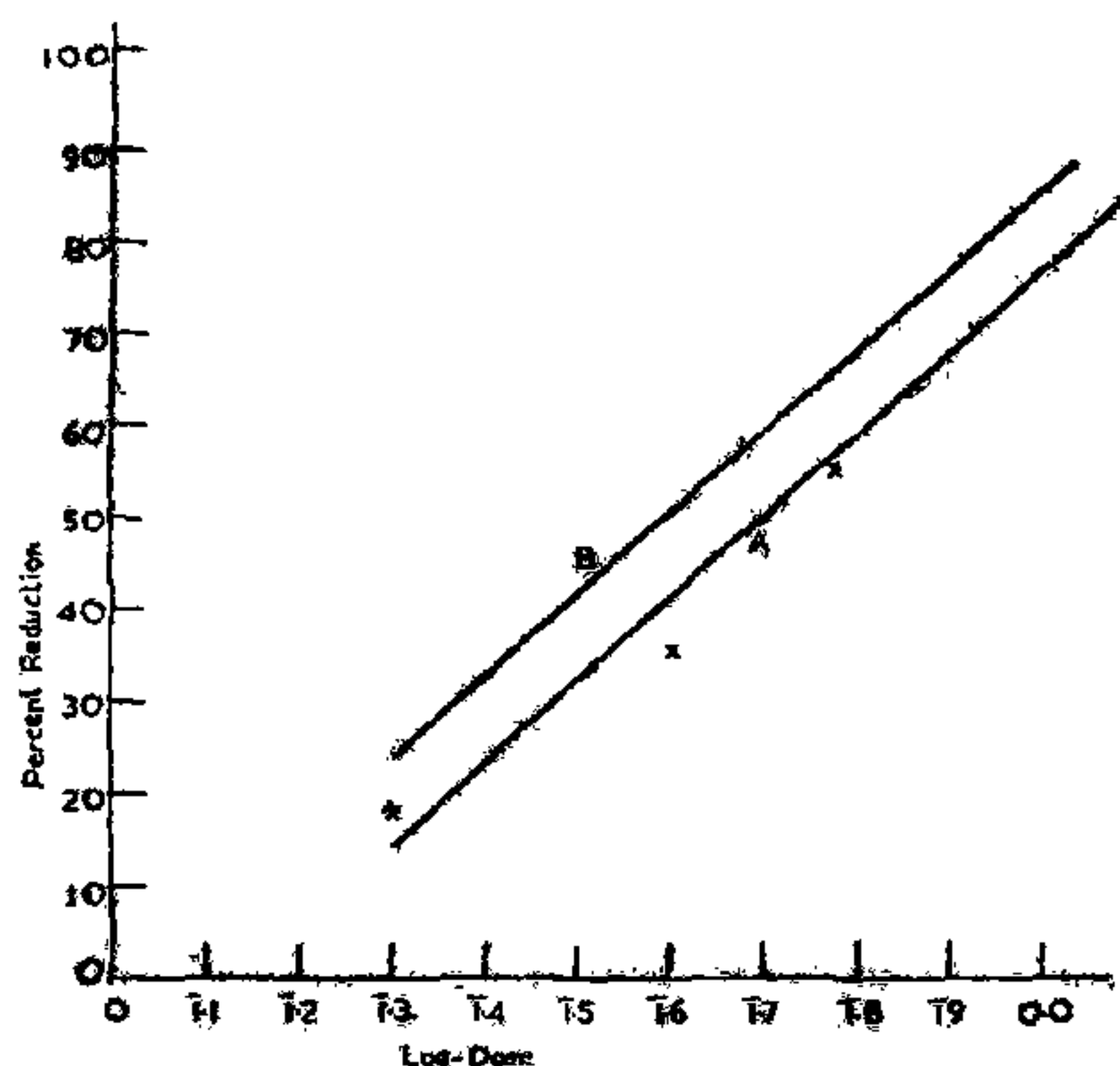


FIG. 1. Graph of log dose plotted against percentage inhibition of adrenaline effect by *Rauwolfia* alkaloids.

A—Laboratory Standard  
B—The Test Substance

to the varying potency of the different fractions which constitute the crude alkaloids. Hence it can be stated that the second sample (B) is 1.26 times more active biologically than the laboratory standard (A).

Since the test is based on quantitative adrenolytic response it is possible to repeat the doses many times on the same test object. By suitable arrangement of the laboratory standard and the test preparation, sources of error such as variation between animals, can be eradicated.

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## VIRUSES AND THE CONTROL OF INSECT PESTS

DR KENNETH M SMITH, of the Agricultural Research Council's Virus Research Unit, at Cambridge, has contributed an interesting article (*Discovery*, November 1954) which outlines both the fundamental knowledge of insect viruses that has recently been obtained and their use in the control of insect pests. Thus, the alfalfa butterfly in California has been effectively controlled by spraying the crop with stored polyhedra obtained from diseased caterpillars, and the pine sawfly in Canada has been

controlled by a virus of polyhedral type procured from Sweden. A very interesting discovery is that some virus diseases are not highly specific, but can attack a number of different species of Lepidoptera; sometimes the virulence of the infection can be increased by mixing two viruses. In general, the persistent nature of the viruses and the fact that they do not affect the natural enemies of the pests make them a promising alternative to insecticides.