

AGRICULTURAL EXPERIMENT STATION
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PRELIMINARY RESULTS OF METHYL BROMIDE
FUMIGATION FOR SATIN MOTH

by

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This is merely a report of progress on the work done with methyl bromide fumigation for the control of the satin moth (Stilpnotia salicis (Linn.))

The satin moth winters over as a small brownish caterpillar, about a quarter of an inch long, in a silken cocoon which is concealed in moss and cracks of the host tree. It is this stage of the moth which must be killed to prevent it from being introduced into uninfested areas.

The data presented in Table 1 indicate that these caterpillars can be killed with methyl bromide used at the rate of two pounds for four hours when the temperature is 65° F. or over. Two pounds for three hours when the temperature is 65° F. or over appears to be sufficient, but until further data are available, it would be safer to use two pounds for four hours.

No data are as yet available on injury by methyl bromide to the host plants of this insect, but from the literature on this subject, it appears that the suggested dosage would be safe to use.

Table 1

METHYL BROMIDE FUMIGATION FOR THE SATIN MOTH
(3d Instar Larvae)

Date applied	Date counted	Amount per 1000 cu.ft.	No. hours exposure	Temperature range	Larvae Live	Dead	%Dead
Check No treatment	Oct. 7-22	-	-	-	71	5	6.6
					(A number of these were saved for observation and all were alive at least one week after the first examination.)		
Oct. 11	Oct. 21	2 lbs.	1 hr.	69° - 70°	27	8	22.9
					(Twenty-six alive on Oct. 24.)		
Oct. 11	Oct. 13	2 lbs.	2 hrs.	69° - 70°	14	22	61.1
					(Three still alive on Nov. 5.)		
Oct. 11	Oct. 21	2 lbs.	2 hrs.	69° - 70°	14	25	64.1
					(Ten still alive on Nov. 5.)		
Oct. 17	Oct. 18	2 lbs.	3 hrs.	65° - 69°	10	117	92.1
					(Two of these showed slight signs of life on Oct. 19, only one on Oct. 24, and all were dead by Nov. 5.)		
Oct. 10	Oct. 11	2 lbs.	4 hrs.	65° - 67°	0	80	100.0
Oct. 21	Oct. 22	2 lbs.	4 hrs.	62° - 64°	9	56	86.2
					(One still showed signs of life on Nov. 5 but was very feeble.)		
Oct. 28	Nov. 4	2 lbs.	4 hrs.	56° - 57°	1	147	99.3
					(The live one was very feeble when first examined and died by Nov. 5.)		