

The Uptake of SYNTHOS by Tobacco.

Introduction and Conclusions.

The rate of uptake of SYNTHOS by tobacco has been investigated by determining the SYNTHOS content of cigarettes which had been stored in packets, previously treated with a solution of SYNTHOS.

When the SYNTHOS was added to the tissue lining of the foil packet, there was a fairly rapid uptake of SYNTHOS by tobacco. Although the rate was somewhat dependant on the amount of SYNTHOS added to the packet, 100% uptake was complete in one month for both concentrations studied. There was no uptake of SYNTHOS by the cigarettes when the inside of the outer paper packet was treated, even though the packets were sealed in a cellophane wrapping. Results indicate a definite loss of SYNTHOS through the cellophane but not through the foil. It is, in fact, quite possible to detect the characteristic smell of SYNTHOS with the packets which had been treated on the paper wrapping but not for packets treated on the tissue of the foil.

Experimental

Raleigh cigarettes were used throughout for the work described in this report. These cigarettes contained no SYNTHOS.

The original packets of cigarettes were opened and the cigarettes re-packed in packets which had been treated with an ethanolic solution of SYNTHOS. The solution was added to

- a) the inner tissue of the foil packet and
- b) the inside of the outer paper packet.

All packets were sealed in the standard cellophane wrapping and stored at laboratory temperature.

After varying intervals of time, the packets were opened and the SYNTHOS content of the tobacco and of the packets determined. The method of estimation used was the standard method developed by I.T.Co.

Table of Results

Time of storage	Packet treated	Amount added mg. per pkt.	Amount on tobacco mg. per pkt.	Amt. on packet mg. per pkt.
1 week	Tissue of foil	1	0.3	0.6
1 week	Tissue of foil	3	2.6	0.3
1 week	Paper	3	none detected	2.8
2 weeks	Tissue of foil	1	0.75	0.3
2 weeks	Tissue of foil	3	2.2	0.5
2 weeks	Paper	3	none detected	2.4
4 weeks	Tissue of foil	1	1.0	none detected
4 weeks	Tissue of foil	3	3.0	none detected
4 weeks	Paper	3	none detected	1.0

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20.9.60.

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