

## 7488 C

## I. Effect of Dyes on Colonies of Certain Pathogenic Fungi.

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In the present work observations were made of the growth of certain pathogenic fungi on a medium containing alcoholic nigrosine and one containing litmus.\*

The medium† consisted of 4% peptone, 1% dextrose, 1½% agar in distilled water and was adjusted to pH 5.5 and saturated with dye by heating, filtered and autoclaved. Sabouraud's proof medium and a control medium without dye also were planted. The dyes were incorporated in the 4% peptone, 1% dextrose medium instead of Sabouraud's proof medium since we felt that with this medium moisture was retained better, there was better differentiation, growth was as rapid and slightly more profuse and, as a rule, less aerial. In many instances the growth showed a frosted surface effect resembling the growth of yeasts which type of growth was absent in the case of Sabouraud's proof medium. Difco products were used.

The following pathogenic fungi and 2 saprophytes, *Lichtheimia* sp. and *Scopulariopsis brevicaulis* were observed: *Achorion schoenleinii*, *Acladium castellani*, *Candida candida*, *Endodermophyton tropicale*, *Endomyces capsulatus*, *Endomyces dermatitidis*, *Epidermophyton inguinale*, *Glenospora gammeli*, *Geotrichum bachmann*, *Indiella americana*, *Monosporum apiospermum*, *Microsporon audouini*, *Monilia albicans*, *Oöspora humi*, *Trichophyton crateriforme*, *Trichophyton granulosum*, *Trichophyton japonicum*, *Trichophyton interdigitale*, *Willia anomala*. Observations were limited to 30 days. The tubes were kept at room temperature and growth occurred in all within 3 days.

The table gives the time within which color was noted. t indicates tint, m mycelial, s slight, f frosted. In the litmus medium several growths appeared whiter and these are so designated. The microscopic color change where recognizable is designated by t.

The results are apparent from the table. The growth of *Indiella*

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\* Black Nigrosine (alcohol soluble), Central Scientific Co., Boston, Mass. Litmus Cubes, Merck & Co., New York.

† Details of Medium in future publications entitled: "Studies of the Effect of Variation of the Ratio of Peptones to Dextrose on the Colonies of Certain Pathogenic Fungi."

TABLE.

Organism	Nigrosine Medium color		Litmus Medium color	
	Macroscopic	Microscopic	Macroscopic	Microscopic
<i>Achorion schoenleinii</i>	7	t	7	t
<i>Acladium castellani</i>	11	t	11	t
<i>Candida candida</i>	14	t	11	t
<i>Endodermophyton tropicale</i>	11 t	t	11 t	t
<i>Endomyces capsulatus</i>	11 f	t	whiter	
<i>Endomyces dermatitidis</i>	20 f		20 f	
<i>Epidermophyton inguinale</i>	20 t m		20 t m	
<i>Geotrichum bachmann</i>	7	t	7	t
<i>Glenospora gammeli</i>	20 f	t	whiter	
<i>Indiella americana</i>				
<i>Lichtheimia sp.</i>				
<i>Monosporum apiospermum</i>	24 f	t	24 t f	
<i>Microsporon audouini</i>	24 t		24 t	
<i>Monilia albicans</i>	11	t	11	t
<i>Oöspora humi</i>	11	t	20	t
<i>Scopulariopsis brevicaulis</i>	20 t	t	20 t	
<i>Trichophyton crateriforme</i>	14 t m	t	20 t m	t
<i>Trichophyton granulosum</i>	14 t m	t	20 t m	t
<i>Trichophyton interdigitale</i>	14 t m	t	20 t m	
<i>Trichophyton japonicum</i>			whiter	
<i>Willia anomala</i>	7	t	11	t

*americana* on Sabouraud's was a light yellow, on all other media white, with the exception of a small frosted rim which took the color of nigrosine and litmus in the respective instances. Sabouraud's proof medium did not show the frosted growth appearance, while in the control medium it was especially apparent with *Endomyces capsulatus*, *Endomyces dermatitidis*, *Glenospora gammeli* and *Monosporum apiospermum*.

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## II. Effect of Dyes on Colonies of Certain Pathogenic Fungi.

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In a previous paper observations were made on the growth of certain pathogenic fungi on a medium containing alcoholic nigrosine and one containing litmus.<sup>1</sup> In the present paper a like medium (peptone 4%, dextrose 1%, agar 1½%) containing 2% Eosin Y and one containing 2% Eosin B\* were used.

The following pathogenic fungi and 2 saprophytes, *Lichtheimia sp.* and *Scopulariopsis brevicaulis* were observed: *Achorion schoen-*

<sup>1</sup> Williams, John W., PROC. SOC. EXP. BIOL. AND MED., 1934, **31**, 1173.