TABLE.

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

7489 C

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.[1] 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-*

[1] Williams, John W., PROC. SOC. EXP. BIOL. AND MED., 1934, **31**, 1173.

leinii, Acladium castellani, Candida candida, Endodermophyton tropicale, Endomyces capsulatus, Endomyces dermatitidus, Epidermophyton inguinale, Glenospora gammeli, Geotrichum bachmann, Indiella americana, Monosporum apiospermum, Microsporon audouini, Monilia albicans, Oöspora humi, Trichophyton crateriforme, Trichophyton granulosum, Trichophyton interdigitale, Trichophyton japonicum, Willia anomala. Observations were made over 30 days. The tubes were kept at room temperature.

Growth occurred within 4 days in all tubes of the control media and in the dye tubes with the exception of *Achorion schoenleinii, Endodermophyton tropicale*—Eosin B, *Glenospora gammeli, Microsporon audouini*—Eosin Y where it occurred in 6 days, *Endodermophyton tropicale*—Eosin Y, *Microsporon audouini*—Eosin B, where it occurred within 11 days and *Trichophyton crateriforme, Trichophyton japonicum*—Eosin B, where it occurred within 8 days, Growth was as a rule somewhat less marked on the media containing dye but only markedly so in the instance of *Trichophyton japonicum.*

As in the previous article[1] the frosted appearance was noted in the colonies of the control medium and Eosin Y medium with *Endomyces capsulatus, Endomyces dermatitidus, Glenospora gammeli, Indiella americana, Monosporum apiospermum* and in Eosin B medium with *Endomyces capsulatus, Endomyces dermatitidus* and *Indiella americana.* A narrow frosted rim was noted with *Trichophyton japonicum* on Eosin Y.

Color was marked in the organismal colonies on practically all the dye media. *Candida candida* appeared more granular in the presence of dye, *Epidermophyton inguinale* less wrinkled, *Monilia albicans* more granular on Eosin B, *Oöspora humi,* more mycelial. Macroscopic color was observed in all growths within 7 days with the exception of *Endodermophyton tropicale*—Eosin Y, *Epidermophyton inguinale, Trichophyton interdigitale,* where color was noted within 11 days and *Indiella americana, Lichtheimia sp., Microsporon audouini*—Eosin B, where color was observed within 20 days. The color made its first appearance in the center of the colony of *Trichophyton interdigitale* proceeding from there to the outer borders of the colony.

On microscopic examination each element of the different colonies

*** Eosin Y (water and alcohol soluble), Schultz No. 587, Batch NE-7, National Aniline and Chemical Co., Inc., New York, N. Y.**

Eosin B (water and alcohol soluble), Schultz No. 590, Batch NEb-4, National Aniline and Chemical Co., Inc., New York, N. Y.

seemed capable of taking up color. The mycelia, however, in general showed less tendency to take up color. The depth of color and the number of elements colored varied with the growth. A more uni form tinting was present in some of the more mycelial growths. In most cases granules, vacuoles and refractile rims were very apparent. There were no indications that the more deeply colored elements lacked viability. Both eosins gave good results.

It is felt that the dye media used are of value in differentiation and that the added expense of this type of vital staining is compensated for by the greater distinctness of appearances.

7490 C

Growth of Certain Pathogenic Fungi on Asparagin Medium.

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Since asparagin is used frequently as a substitute for peptone, it was substituted in the following observations and the differential characteristics of the organisms planted were observed.

The media used differed in that a portion contained 1% dextrose while another portion did not. The constituents were: Asparagin 10 gm., dextrose 10 gm., $MgSO_4.7H_2O$ 0.4 gm., NaCl 2.0 gm., KH_2PO_4 6.0 gm., K_2HPO_4 1.0 gm., agar 1.5 gm., distilled water 1000 cc.

The salts as used resulted in a pH of 5.5. A control medium of 4% peptone, 1% dextrose and 1½% agar was planted.

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

The table gives the number of days within which growth occurred. One plus indicates a scant growth, 2, 3, 4 plus successively