

FURTHER OBSERVATIONS ON THE LONGEVITY  
OF DRY SPORES OF *B. ANTHRACIS*

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IN 1930 the author (Graham-Smith, 1930) showed that of spores of *B. anthracis* inoculated on 7 July 1907, on to dry, sterile pieces of canvas, measuring about 0.5 × 0.5 in., which were kept in a Petri dish in a cupboard with a glass door in the laboratory and therefore exposed to diffuse daylight at room temperature in a dry atmosphere, large numbers were capable of germinating in ordinary laboratory media after 10 years and progressively smaller numbers after 17 and 20 years. Very few germinated after 22 years and none after 22½ years.

Of the pieces of canvas inoculated on the date mentioned eight were enclosed separately in small, sterile envelopes made of moderately thick, opaque paper, which were kept in a Petri dish in the same cupboard. The spores were therefore subjected to the same conditions as the others, except that they were less exposed to diffuse daylight.

During September 1941, 34 years after inoculation, four of the pieces were placed in sterile Petri dishes and covered with nutrient agar, melted and cooled to 50° C., and four in tubes of broth. No growth was observed in any of these cultures after 15 days' incubation at 37° C.

The protection from diffuse daylight afforded by the paper envelopes did not therefore prolong by one-half the time during which the most resistant of the spores remained capable of germination.

REFERENCE

- GRAHAM-SMITH, G. S. (1930). The longevity of dry spores of *B. anthracis*. *J. Hyg., Camb.*, **30**, 213-15.

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