

D-44: Effect of neighbourhood bacteria in excystment of paddy soil protozoa

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The ability to encyst on desiccation and to excyst when moisture is available is of prime importance to free-living protozoa. Cyst formation enables soil protozoa to survive the hazard of desiccation of soil. In culture media, a variety of other condition will cause encystment. Nevertheless, excystment does not occur when conditions that caused encystment return to normalcy and the presence of an external stimulus capable of re-establishing metabolic activity and intra-cellular differentiation is needed to initiate excystment.

Seven cyst-forming types of protozoa isolated into exenic cultures from paddy soils were used as research tools, to investigate the possible correlation between the type of bacterium in the vicinity of a protozoan cyst causing excystment and its food preferences.

The study revealed that rapid excystment was induced by certain bacteria while some, though inducing rapid excystment, cause premature death of the protozoan.

There was a correlation between the types of bacterium in the vicinity of the protozoan causing excystment and its food preferences.

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