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COURSE TITLE : MICROBIAL ECOLOGY (MCB 308)

SERIAL NO : 11

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TITLE : Microbial Colonization And Succession On Donkey Dung.

AIM : To study colonization and succession of microbes (fruiting bodies) on donkey dung.

MATERIALS : A pair of sterile gloves, three (3) disposable plastic containers with tightly fitted lids, spade, petri-dishes, distilled water, nutrient agar and Potato Dextrose Agar (PDA).

PROCEDURE : Three (3) samples of fresh donkey dung were aseptically collected using sterile gloves and a spade.

* + - The samples were kept in a sterilized plastic bag which was then tied to enclose air.
    - Transferred to plastic containers after rehydrating and sealed with tightly fitted lids.
    - Fruiting bodies were observed at intervals.
    - Fruiting bodies were taken and inoculated using Potato Dextrose Agar (PDA) and nutrient agar.
    - Growth was observed and counted.

RESULT(S) AND OBSERVATION :

Table 1.1

|  |  |  |  |
| --- | --- | --- | --- |
| Sampling days | Sample 1 | Sample 2 | Sample 3 |
| 1 | nil | nil | nil |
| 2 | nil | nil | nil |
| 4 | nil | nil | nil |
| 6 | 1 | 2 | nil |
| 8 | 1 | 2 | 1 |
| 10 | 2 | 3 | 1 |
| 17 | 2 | 5 | 2 |
| 25 | 3 | 5 | 2 |

DISCUSSION :

Streaking method was used for cultivation and isolation of the viable microorganisms observed.

We inoculated only for sample 2 on day 8 and Day 25 because of insufficient agar (nutrient). Sample 2 was used and the table below (see Table 1.2) displays the number of microorganisms observed.

Table 1.2

|  |  |  |
| --- | --- | --- |
| Sampling Day(s) | Potato Dextrose Agar (PDA) (cfu) | NA(cfu) |
| 8 | 5 | 13 |
| 25 | 7 | 32 |

CONCLUSION :

In essence, there was observable microbial growth after 25 days.