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Cultivation / Spore Production for Alternaria Solani

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Abstract

Protocol for the cultivatio of Alternaria Solani.

This protocol has been used for many years at the chair of Phytopathology at the Technical University of Munich.

SNA Medium was first described by Nirenberg in 1981.

Citation: Remco Stam Cultivation / Spore Production for Alternaria Solani. protocols.io

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Guidelines

Work under sterile conditions when inoculating new plate.

Protocol

Step 1.

Inoculate Mycelium with spores from the stock plate of fresh SNA plates.

Make sure to inoculate only a small amount right in the middle of the plate to allow even and equal spread and growth throughout the plate.



. SNA medium

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Step 1.1.

Dissolve all salts and other ingredients in 11 of distilled water:

KN2PO4 1g

KNO3 1g

MgSO4-7H2O 0.5g

KCI 0.5g

Glucose 0.2g

Sucrose 0.5g

Step 1.2.

Add 22 g of Kobe Agar

Step 1.3.

Bring pH to about 5.5 using approx. 600 µl NaOH

Step 1.4.

Autoclave at 15 psi for 20 min

Step 2.

Store plate in a growth chamber with 12/12 h darkness/blacklight

Optimal temperature is 22°C

Optimal humidity 60-70%

Allow to grow for 3 weeks

Step 3.

Harvest spores adding some 0.0-0.5% tween solution to the plate and scraping gently with a coverslip.

Collect all liquid with spores

Step 4.

Filter through four layers of mesh (e.g. cheese cloth) to remove mycelial debris.