



Rye Agar A

M1854

Rye Agar A is recommended for the isolation of *Phytophthora infestans*.

Composition**

Ingredients	Gms / Litre
Rye	60.000
Sucrose	20.000
Agar	15.000

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 95 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 20 minutes. Mix well before pouring.

Principle And Interpretation

Phytophthora infestans is an oomycete that causes the serious potato disease known as late blight or potato blight. The organism can also infect tomatoes and some other members of the Solanaceae (1). *Phytophthora infestans* produces microscopic, asexual spores called sporangia. When the environment is highly conducive for disease, sporangia are airborne and spread for miles. The fungus will also survive in infected tubers that remain in soil from the previous season. Seed pieces can also be infected and harbor the pathogen (2,3,4).

Quality Control

Appearance

Light yellow to light brown hygroscopic soft lumps which can be easily broken down to powder

Gelling

Firm, comparable with 2.0% Agar gel.

Colour and Clarity of prepared medium

Medium amber coloured opaque gel forms in Petri plates

Cultural Response

M1854: Cultural characteristics observed after an incubation at 30°C for 2 weeks.

Organism	Inoculum (CFU)	Growth
<i>Phytophthora infestans</i>	50-100	good

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

- Nowicki, Marcin et al. (17 August 2011), Potato and tomato late blight caused by *Phytophthora infestans*: An overview of pathology and resistance breeding, Plant Disease, ASP, doi:10.1094/PDIS-05-11-0458<(>,<)>
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- Alexopoulos, C. J., C. W. Mims, and M. Blackwell. 1996. Introductory Mycology. John Wiley & Sons, Inc. New York, USA.
- Hooker, W. J. 1986. Editor. Compendium of Potato Diseases. American Phytopathological Society Press. St. Paul, Minnesota.

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