

## TM 2307 – RYE AGAR A

### INTENDED USE

For the isolation of *Phytophthora infestans*.

### PRODUCT SUMMARY AND EXPLANATION

*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. *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.

### COMPOSITION

Ingredients	Gms / Ltr
Rye	60.000
Sucrose	20.000
Agar	15.500

### PRINCIPLE

The medium consists of Rye, a cereal grain that supplies manganese, tryptophan, phosphorous and magnesium to the pathogen. Sucrose in the medium act as an energy source. Agar is the solidifying agent.

### INSTRUCTION FOR USE

- Dissolve 95 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 20 minutes.
- Cool to 40-45°C. Mix well and pour into sterile Petri plates.

### QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Light yellow to light brown hygroscopic soft lumps which can be easily broken down to powder.
- Appearance of prepared medium** : Medium amber coloured opaque gel forms in Petri plates.

### INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
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<i>Phytophthora infestans</i>	50-100	Good	40-50%	30°C	2 Weeks
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#### PACKAGING:

In pack size of 500 gm bottles.

#### STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.










**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

#### DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

#### REFERENCES

1. Agrios, G. N. 1988. Plant Pathology. APS Press. St. Paul, Minnesota.
2. Alexopoulos, C. J., C. W. Mims, and M. Blackwell. 1996. Introductory Mycology. John Wiley & Sons, Inc. New York, USA.
3. Hooker, W. J. 1986. Editor. Compendium of Potato Diseases. American Phytopathological Society Press. St. Paul, Minnesota.
4. 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.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
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