TM 2308 – RYE AGAR B

INTENDED USE
For sporulation 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.
A study conducted to compare media for mycelial growth, sporangia, oospore production by isolation of *Phytophthora infestans* showed better growth on Rye Agar and V8 Juice Agar as compared to other media.

COMPOSITION

Ingredients	Gms / Ltr
Rye	60.000
Sucrose	20.000
Beta-sitosterol	0.050
Agar	15.500

PRINCIPLE
The medium consists of Rye, a cereal grain which supplies manganese, tryptophan, phosphorous and magnesium to the pathogen. Sucrose is the carbohydrate source. Beta sitosterol helps in sporulation.

INSTRUCTION FOR USE
- Dissolve 95.0 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

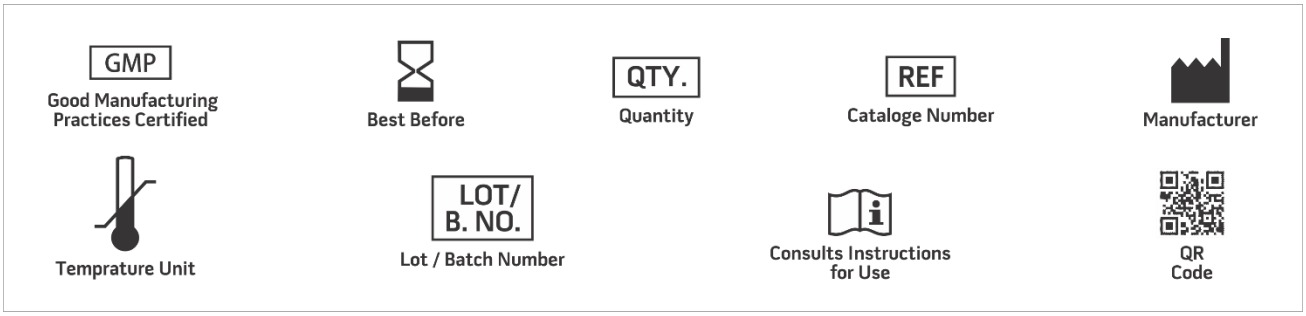
Phytophthora infestans	50-100	Good	40-50%	18-24°C	2 Weeks in dark

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.



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