

Technical Information

Mathur's Medium Modified

Product Code: PHM1023

Application: Mathur's Medium Modified is a non-selective medium recommended for the sporulation of *Colletotrichum* species.

Composition**

Ingredients	Grams/Litre
Peptone	2.00
Magnesium sulphate, heptahydrate	1.22
Potassium dihydrogen phosphate	2.72
Sucrose	2.80
Agar	20.00

**Formula adjusted standard to suit the performance parameter.

Principle And Interpretation

Anthrachnose on strawberry is caused by the fungal plant pathogen *Colletotrichum* namely *C.acutatum* and *C.gloeosporioides*).

Plants infected with *C. acutatum* develop bud and crown rot, causing the collapse and death of the entire plant. In the nursery, lesions are formed on stolons that may girdle the runners, causing wilting and death of unrooted plants. In addition, plants may develop symptoms of stunting and chlorosis, associated with root necrosis caused by *C.acutatum* (1). *C.acutatum* causes leaf-curl disease.

Peptone supplies nitrogenous compounds to the organisms. Sucrose serves as carbohydrate source. Potassium dihydrogen phosphate buffers the medium while magnesium sulphate provides the necessary cations.

Directions

Suspend 28.12 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

Quality Control

Appearance:

Cream to yellow coloured homogeneous free flowing powder

Gelling:

Firm comparable with 2.0% Agar gel

Colour and Clarity of prepared medium:

Yellow coloured clear to slightly opalescent gel forms in Petri plates

Reaction:

Reaction of 3.72% w/v aqueous solution is pH 7.5

Cultural Response:

Cultural characteristics observed after an incubation at 20-25°C for upto 5 days

Organism (ATCC)

Colletotrichum acutatum

Colletotrichum .gloeosporioides

Growth

Good

Good

Storage and Shelf Life

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

Further Reading

- Correll J C, Morelock T E, Guerber J C. Vegetative compatibility and virulence of the spinach anthracnose pathogen, *Colletotrichum dematium*. Plant Dis. 1993; 77:688 - 691.

Disclaimer :

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