

Technical Data

Mathur's Medium Modified

PHM023

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

Composition:

Ingredients	Gms/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

Direction.:

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.

Principle:

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

Quality Control:

Appearance:

Cream to yellow coloured homogeneous free flowing powder.

Colour and Clarity of prepared medium:

Yellow coloured clear to slightly opalescent gel forms in Petri plates.

Gelling:

Firm comparable with 2.0% Agar gel.

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Cultural response:

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

Organism (ATCC)GrowthColletotrichum acutatumgoodColletotrichum .gloeosporioidesgood

Reference:

1. 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.

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