



## **PHM017**

## Phyto Tbb Agar Base

Semi-selective medium for the detection of *Xanthomonas campestris pv*.vesicatoria and *Xanthomonas* vesicatoria on seeds of pepper and tomato.

### **Composition** \*\*:

Ingradients	Grams/Litre
Potassium dihydrogen phosphate	0.80
Di-potassium hydrogen phosphate	0.80
Ammonium chloride	1.00
Lactose	10.00
Trehalose	4.00
Thiobarbituric acid	0.10
Yeast extract	0.50
Agar	15.00

Final pH (at 25°C) 6.6 \*\*Formula adjusted standard to suit the performance parameter

# Direction.:

Suspend 32.2 grams in 1000 ml distilled water containing 10 ml Tween 80. Heat to boiling to dissolve the medium completely. Sterilize the medium by autoclaving at 15 lbs pressure (121°C) for 15 minutes .Cool to 45-50°C and aseptically add the rehydrated contents of one vial of CCFTNB supplement-1 (PHS013) Mix well and pour into sterile Petri plate .

### **Principle and Interpretation**

Bacterial spot is caused by the bacterium *Xanthomonas campestris* pv. *Vesicatoria*, which usually affects tomato and pepper. This pathogen can be isolated on standard microbiological media and produces yellow, mucoid slow growing colonies .It is one of the most destructive diseases in climates where high temperature and frequent rainfall occur during the growing season. Visual symptoms include necrotic spots which may appear on leaves, stems and fruits, which are initially seen on the undersides of the leaves as water soaked areas. They enlarge and then turn dark brown.(2)

Tween medium was designed for the detection of *Xanthomonas campestris pv*.vesicatoria and *Xanthomonas* vesicatoria on seeds of pepper and tomato (1).

Yeast extract supplies nitrogeneous compounds and vitamins to the organism.Lactose and Trehalose are the carbohydrate sources.

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### **Quality Control :**

Cream to yellow coloured, homogeneous, free flowing powder. **Gelling** Firm, comparable with 1.5% Agar gel. **Colour and Clarity of prepared medium** Yellow coloured, clear to opalescent gel forms in Petri plates **Reaction** 

Reaction of 3.22% w/v aqueous solution is pH 6.6 at 25°C.

### **Cultural Response:**

Cultural characteristics observed with added CCFTNB supplement-1, after an incubation at 30-32°C for 5-6 days .

Organism (ATCC)	Growth	Colour of the Colony
Xanthomonas campestris pv.vesicatoria	luxuriant	yellow ,mucoid
Xanthomonas vesicatoria	luxuriant	yellow ,mucoid

# **References:**

- 1. McGuire, R.G., Jones, J.B., and Sasser, M. 1986. Tween medium for semiselective isolation of *Xanthomonas campestris pv.* Vesicatoria from soil and plant material. Plant Dis. 70:887-891.
- 2. Steven T.Koike, Peter Gladders, Albert o. Paulus, Vegetable diseases, a colour handbook Pg.199-201

### **Storage and Shelf-life :**

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

#### Disclaimer :

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