PHM012 **Phyto Semiselective Agar Base**

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

Composition **:

Ingredients	**Grams/Litre**
Soya peptone	2.00
Tryptone	2.00
Glucose anhydrous	1.00
L-glutamine	6.00
L-histidine	1.00
Di-ammonium hydrogen phosphate	0.80
Potassium dihydrogen phosphate	1.00
Magnesium sulphate anhydrous	0.20
Agar	15.00

**Formula adjusted standard to suit the performance parameter

Direction.:

Suspend 29.0 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 (PHS011) Mix well and pour into Petri plates .

Principle and Interpretation

Bacterial spot is caused by *Xanthomonas campestris* pv. *vesicatoria* . A semi -selective medium was developed by Sijam (1) wherein *Xanthomonas campestris pv.*vesicatoria was distinguished from its other pathovars by the formation of clear zone around the colony after 2-3 days of incubation.

Soya peptone and tryptone supplies nitrogeneous compounds and other nutrients to the organisms. Glucose is the carbohydrate source. L-glutamine and L-histidine supplies amino acid. The phosphates in the medium serves as a buffer. Bacterial and fungal contaminants were inhibited by the antibiotic CCFTNB supplement (PHS011) . 5-fluorouracil in the medium is affective in eliminating fluorescent pseudomonads

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

Cultural Response:
Cultural characteristics observed after an incubation at 30-32°C for 5-6 days with added CCFTNB supplement (PHS011) .

Organism (ATCC)	Growth	Colour of the Colony
*Xanthomonas campestris pv.*vesicatoria	luxuriant	yellow, mucoid, round
Escherichia coli (25922)	inhibited	-
Staphylococcus aureus (25923)	inhibited	-
Pseudomonas aeruginosa (27853)	inhibited	-
Candida albicans (10231)	inhibited	-

References:

1. Sijam, K., Chang, C.J. and Gitaitis, R.D. 1992. A medium for differentiation of tomato and pepper strains of *Xanthomonas campestris* pv. *vesicatoria.* Canad . J. Plant Pathol. 90:208-213

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

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