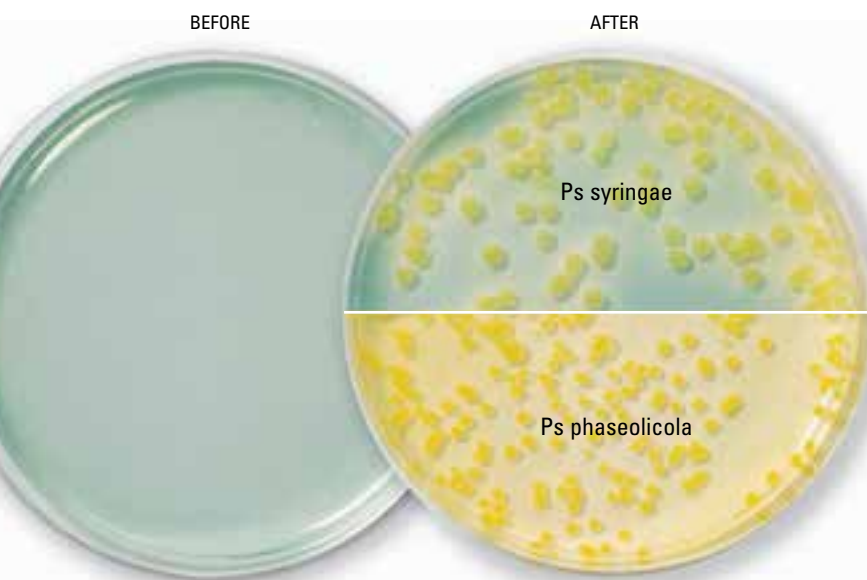


# M5167 MSP Medium

Crop:	<b>Bean (<i>Phaseolus vulgaris</i>)</b>
Disease:	<b>Bacterial brown spot and halo blight</b>
Pathogen:	<b><i>Pseudomonas syringae</i> pv. <i>syringae</i></b> <b><i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i></b>



MSP (Modified Sucrose Peptone) medium is a suitable medium for the detection of *Pseudomonas savastanoi* pv. *phaseolicola* (*Pspha*) and *Pseudomonas syringae* pv. *syringae* (*Pss*). Addition of bromothymol blue gives this medium a blue appearance. The color of bacterial colonies is influenced by this compound. The assay starts with dilution plating of bacterial extract from seeds on MSP. Then suspected colonies from MSP can be transferred to King's B Medium (K5165). Finally, the identity of suspected isolates is confirmed by a pathogenicity test or PCR.

Colonies of *Pspha* and *Pss* are ca. 3 mm in diameter, circular, raised, globose, glistening and light yellow with a denser center. The medium around *Pspha* colonies turns light yellow after three days of incubation.

## COMPOSITION OF MEDIA M5167: MSP MEDIUM

COMPOUND	GRAM/LITER
Agar	20.0
Di-potassium hydrogen phosphate ( $K_2HPO_4$ )	0.5
Peptone special	5.0
Magnesium sulphate anhydrous ( $MgSO_4$ anhydrous)	0.13
Sucrose	20.0

## METHOD

- Dissolve 45.6 grams of ingredients in distilled water and adjust volume to 1000 ml.
- Adjust pH to 7.4.
- Autoclave the solution (121 °C, 15 psi, 15 minutes).
- Prepare sterile solutions and add the following amounts per liter medium:  
80 mg cephalixin monohydrate (C0110)  
35 mg nystatin (N0138)  
10 mg vancomycin HCl (V0155)  
15 mg bromothymol blue
- Allow medium to cool down to ca. 45 °C – 50 °C and add antibiotics to the solution.
- Mix gently to avoid air bubbles and pour plates (15-20 ml per 9.0 cm plate).

## Reference:

Mohan, S.K. and Schaad, N.W. 1987. An improved agar plating assay for detecting *Pseudomonas syringae* pv. *syringae* and *Pseudomonas syringae* pv. *phaseolicola* in contaminated bean seed. *Phytopathology* 77: 1390-1395.

## M5167 MSP MEDIUM

M5167.1000 1 kg

For prepared and ready to use plates of this medium contact:  
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