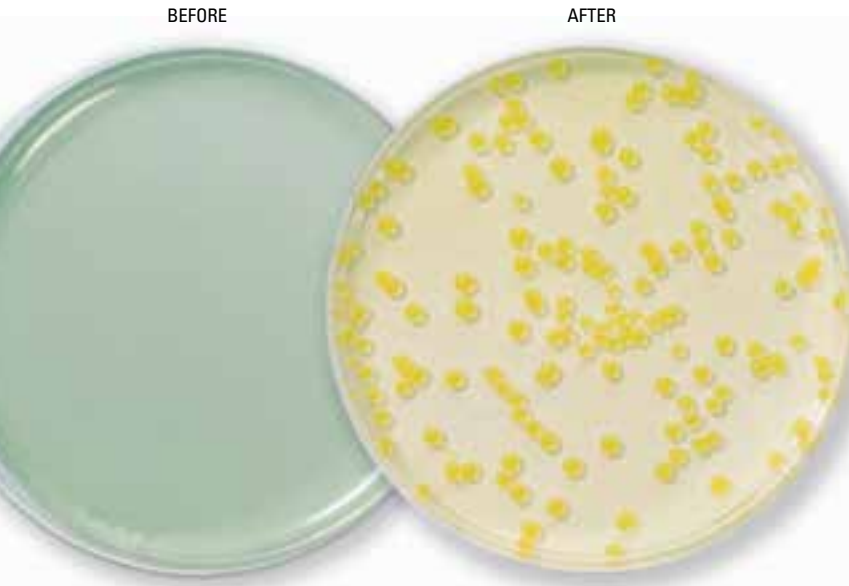


# P5134

## PSM Medium

Crop: **Leek**Disease: **Bacterial blight of leek**Pathogen: ***Pseudomonas syringae* pv. *porri***

*Pseudomonas syringae* pv. *porri* (*Pspo*) is the causal organism of bacterial blight of leek. This pathogen can be seed-borne and therefore the testing of seeds of leek is common. Seeds of leek can be saprophyte-rich and this might disguise the presence of *Pspo*. Detection of this bacterium is performed by dilution plating on highly selective media such as KBBC and PSM (Pseudomonas Syringae Medium). Putative *Pspo* colonies are then transferred to KB. Thereafter the identity of the suspected colonies is determined by immunofluorescence microscopy. Finally, the identity is determined by a *Pspo*-specific PCR or a pathogenicity assay using seedlings of leek.

On PSM the colonies of *Pspo* are 2-4 mm in diameter, circular with smooth edge, translucent, creamy-yellow to transparent white. Note that the color of *Pspo* colonies is rather variable since the accumulation of bromothymol blue per colony is strongly dependent on the total number of colonies per plate.

### COMPOSITION OF MEDIA P5134: PSM MEDIUM

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

### METHOD

- Dissolve 45.6 grams of ingredients in 970 ml distilled water, adjust pH to 7.5 and adjust volume to 990 ml.
- Add 1 gram of boric acid to 10 ml of distilled water.
- Autoclave the solutions separately (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 boric acid and antibiotic solutions to mixture of the ingredients.
- Mix gently to avoid air bubbles and pour plates (15-20 ml per 9.0 cm plate).

### Reference:

Koike, S.T., Barak, J.D., Henderson, D.M., and Gilbertson, R.L. 1999. Bacterial blight of leek: A new disease in California caused by *Pseudomonas syringae*. Plant Dis. 83:165-170.

### P5134 PSM MEDIUM

P5134.1000

1 kg

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