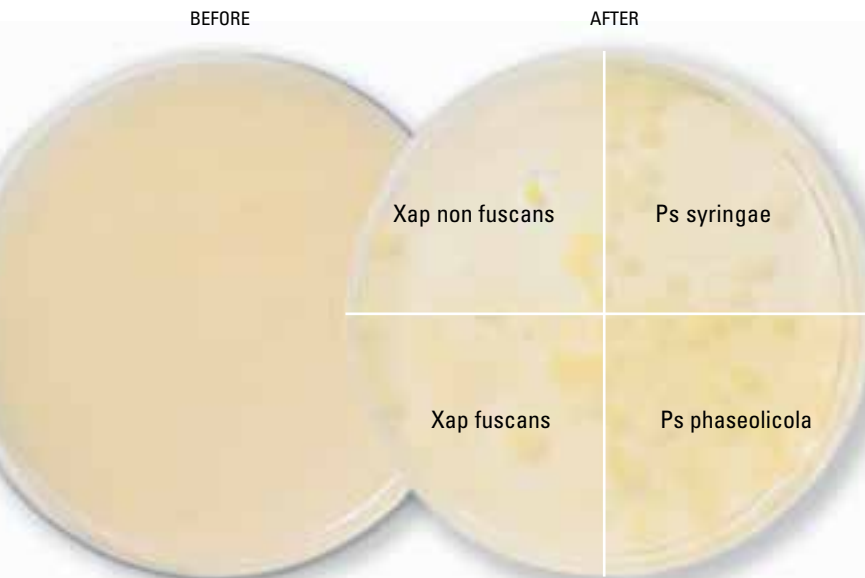


M5133 MT Medium

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



The MT (Milk-Tween) Medium is a semi-selective medium for the detection of *Pseudomonas syringae* pv. *syringae* (*Pss*), *Pseudomonas savastanoi* pv. *phaseolicola* (*Pspha*) and *Xanthomonas axonopodis* pv. *phaseoli* (*Xap*) in bean seed. The medium relies on the ability of the micro-organisms to hydrolyze casein. Suspected isolates are transferred to YDC (*Xap*) or KB (*Pss* and *Pspha*). Finally, the identity of suspected colonies is determined by PCR or a pathogenicity test. The colonies of *Pspha* and *Pss* are cream white, flat circular, 4-5 mm in diameter and produce a blue fluorescent pigment under UV light. *Xap* colonies (3 – 3.5 mm in diameter) are yellow, non fluorescent and typical two zones surround colonies: a bigger, clear zone of casein hydrolysis and a smaller zone of Tween 80 lipolysis. *Xap* var. *fuscans* (1 – 2 mm in diameter) produces a brown pigment within 5 days.

COMPOSITION OF MEDIA M5133: MT MEDIUM

COMPOUND	GRAM/LITER
Proteose Peptone	10.0
Calcium chloride anhydrous (CaCl ₂ anhydrous)	0.25
Tyrosine	0.5
Agar	15.0

METHOD

- Dissolve 25.7 grams of ingredients in distilled water and adjust volume to 800 ml.
- Dissolve 10 ml Tween 80 in distilled water and adjust volume to 100 ml.
- Dissolve 10 g of skim milk powder in 100 ml distilled water.
- Autoclave the solutions separately (121 °C, 15 psi for 15 minutes).
- Prepare sterile antibiotic solutions and add the following amounts per liter medium:
80 mg cephalexin monohydrate (C0110)
35 mg nystatin (N0138)
10 mg vancomycin HCl (V0155)
- Allow medium to cool down to ca. 45 °C – 50 °C and add the Tween, skim milk powder and antibiotics solutions.
- Mix gently to avoid air bubbles and pour plates (20 ml per 9.0 cm plate).

Reference:

Goszczynska and Serfontein, 1998 "Milk-Tween agar, a semiselective medium for isolation and differentiation of *Pseudomonas syringae* pv. *syringae*, *Pseudomonas syringae* pv. *phaseolicola* and *Xanthomonas axonopodis* pv. *phaseoli* ", Journal of Microbiological Methods 32: 65-72.

M5133 MT MEDIUM

K5133.1000 1 kg

For prepared and ready to use plates of this medium contact:
Tritium Microbiologie Tel : 040-2051615
Rooijakkersstraat 6 Fax : 040-2051395
5652 BB Eindhoven Email : info@tritium-microbiologie.nl
The Netherlands