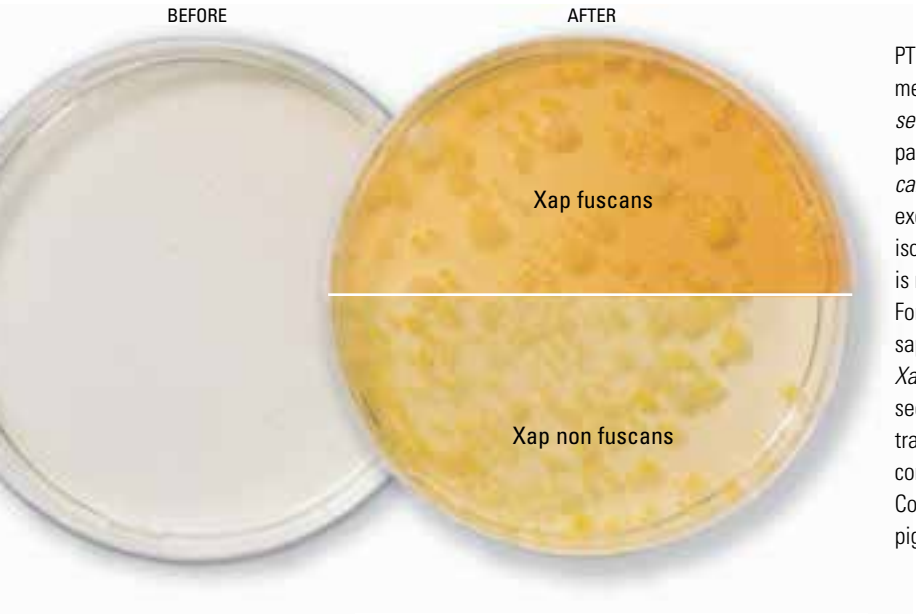
P5135
PTSA Medium

Crop: **Bean *(Phaseolus vulgaris)***

Disease: **Common blight**

Pathogen: ***Xanthomonas axonopodis* pv. *phaseoli***



PTSA (Peptone Tyrosine Sodium chloride Agar) is a semi-selective medium for the detection of *Xanthomonas axonopodis* pv. *phaseoli* in bean seed. The medium is not very selective in comparison with mXCP1, but especially colonies from the var. *fuscans* are easily recognized on this medium because of their excessive production of visible brown pigment. The non-fuscans isolates of *Xap* grow well on PTSA medium but their recognition is much more difficult due to the lack of pigment production.
For relatively clean seed lots, PTSA medium is useful, but for saprophyte-rich samples mXCP1 is much more suitable.
Xap is detected by dilution plating of bacterial extract from seeds on PTSA. Then suspected colonies from PTSA should be transferred to YDC. Finally, the identity of suspected isolates is confirmed by a pathogenicity test or PCR.
Colonies of *Xap* var. fuscans are distinguished by brown pigmentation.

COMPOSITION OF MEDIA P5135: PTSA MEDIUM

COMPOUND	GRAM/LITER
Peptone special	10.0
L-tyrosine	1.0
Soluble starch	2.0
Sodium chloride (NaCl)	5.0
Agar	15.0

METHOD

- Dissolve 33.0 grams of ingredients in distilled water and adjust volume to 1000 ml.
- Autoclave the solution (121 °C, 15 psi, 15 minutes).
- Allow medium to cool down to ca. 45 °C – 50 °C.
- Mix gently to avoid air bubbles and pour plates (15-20 ml per 9.0 cm plate).

Reference:
Van Vuurde J.W.L., Van den Bovenkamp, G.W. and Birnbaum, Y. 1983. Immunofluorescence microscopy and enzyme-linked immunosorbent assay as potential routine tests for the detection of *Pseudomonas syringae pv. phaseolicola and Xanthomonas campestris pv. phaseoli* in bean seeds. Seed Sc. & Technol. 11: 547 -559

P5135 PTSA MEDIUM	
P5135.1000	1 kg

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