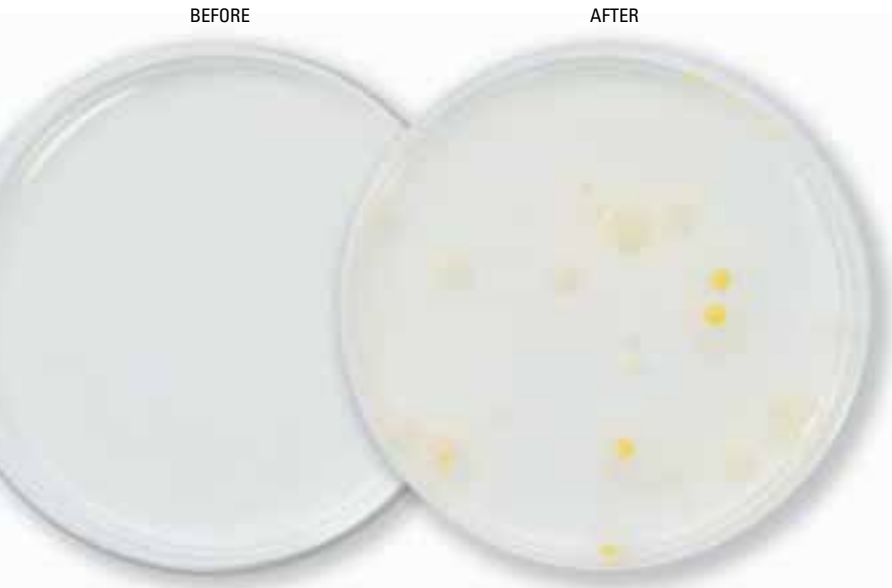


# T5126 mTMB Medium

Crop: **Pepper (*Capsicum annuum*)**  
**Tomato (*Lycopersicon lycopersicum*)**

Disease: **Bacterial spot**

Pathogen: ***Xanthomonas campestris* pv. *vesicatoria***  
***Xanthomonas vesicatoria***



Bacterial spot is an important bacterial disease of peppers. Two different bacteria, *Xanthomonas campestris* pv. *vesicatoria* (*Xcv*) and *Xanthomonas vesicatoria* (*Xv*) can incite this seed borne disease. mTMB (modified Tween Medium B) is a semi-selective medium for detection of *Xcv* and *Xv* on seeds of pepper and tomato. The colonies of *Xcv* and *Xv* on mTMB plates are yellow, slightly mucoid, mounded and round. *Xcv* utilizes Tween 80 and in 3-7 days a white crystalline halo usually forms around the yellow colony. Contaminated seed lots can be detected by dilution plating of the bacterial extract on CKTM, mKM or MXV. Suspected isolates are then transferred to YDC. Finally, the identity of the suspected isolates can be determined by a pathogenicity test or PCR.

## COMPOSITION OF MEDIA T5126: mTMB MEDIUM

COMPOUND	GRAM/LITER
Agar	15.0
Potassium bromide (KBr)	10.0
Boric acid (H <sub>3</sub> BO <sub>3</sub> )	0.1
Calcium chloride anhydrous (CaCl <sub>2</sub> anhydrous)	0.25
Peptone	10.0

## METHOD

- Dissolve 35.3 grams of ingredients in distilled water and adjust volume to 900 ml.
- Dissolve 10 ml of Tween 80 in distilled water and adjust volume to 100 ml.
- Autoclave the solutions separately (121 °C, 15 psi, 15 minutes).
- Prepare sterile antibiotic solutions and add the following amounts per liter medium:
  - 65 mg cephalexin monohydrate (C0110)
  - 12 mg 5-fluorouracil (F0123)
  - 0.2 mg tobramycin sulphate (T0153)
  - 100 mg cycloheximide (C0176)
- Allow medium to cool down to ca. 45 °C – 50 °C, mix the solutions and add antibiotics.
- Mix gently to avoid air bubbles and pour plates (15-20 ml per 9.0 cm plate).

## Reference:

McGuire, R.G., Jones, J.B., and Sasser, M. 1986. Tween medium for semiselective isolation of *Xanthomonas campestris* pv. *veiscatoria* from soil and plant material. Plant Dis. 70:887-891.

## T5126 mTMB MEDIUM

T5126.1000                      1 kg

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