



Species:	<i>Corynespora cassiicola</i>
Product Class(es):	QoI fungicides
Method type described:	Agar plate
Date of protocol:	2026-06
Proven for	Metiltetraprole & Azoxystrobin
Version	1
comments	Protocol adjustments may be needed for other fungicide classes depending on the individual compound characteristics.

Method:

1. Sampling: To obtain *Corynespora cassiicola* isolates, soybean or cotton leaves showing visible disease symptoms are collected. Young leaves with newly developed lesions are preferable. The leaves should be dried thoroughly to remove any surface moisture, placed individually between dry paper towels, and sent to the laboratory.
2. Inoculum production: Conidia from these soybean or cotton leaves are transferred onto the surface of Petri dishes containing potato dextrose agar (PDA). The plates are incubated at 27 °C in the dark.
3. Sensitivity tests: The technical-grade active ingredient is dissolved in dimethyl sulfoxide (DMSO). A 1000-fold dilution series of the active ingredient at the following final concentrations is prepared: 0, 0.01, 0.03, 0.1, 0.3, 1, 3, and 10 ppm. Aliquots (40 µL) of each dilution are mixed with molten YBA agar (40 mL) containing 5 mM n-propyl gallate in glass flask at 60 °C. The YBA agar containing fungicide is poured into Petri dishes and cooled to room temperature. Mycelial plugs from PDA, 4 mm diameter, are placed onto the YBA agar, and the plates are incubated in the dark at 27 °C.
4. Evaluation: Five to seven days after incubation, fungal growth is assessed by measuring the mycelial elongation. Growth inhibition is calculated by the comparison with growth on YBA agar containing 5 mM propyl gallate but no fungicide. The 50% effective concentration (EC₅₀) is calculated by logit regression analysis.

*Yeast Bacto Acetate agar medium

10 g Yeast extract

10 g Bacto peptone

20 g Sodium acetate

15 g Agar

fill up to 1000 mL with distilled water

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