

VERSION: 1.0DATE: 2001PATHOGEN: Stenocarpella maydis (Diplodia zea-maydis)HOST: Maize (Zea mays)COMMON NAME: white ear rot, root and stalk rotMETHOD: Mz 1.1 Culture plate (Iowa State University) (formerly Cf 1.1)METHOD CLASS: STANDARD (A)SAMPLE: 400 seeds

PROCEDURE:

1. Test a total of 4 replications of 100 maize seeds.

2. For each replication, select at random 100 seeds (follow an internationally accepted procedure for mixing and preparing samples).

3. If seeds are chemically treated, wash thoroughly in running water for 10-20 minutes to remove seed treatment.

4. Surface sterilize the seed in 1.0 % sodium hypochlorite (bleach) for 1 min, rinse three times with 400 ml sterile water per rinse.

5. Prepare Potato Dextrose Agar (acidified to pH 4.5 with 85% Lactic Acid). Pour agar in 90x15mm or 100×15 ml aseptic disposable plastic petri plates. Cool and let stand for at least 1 day before use.

6. Place 5 or 10 seeds on each agar filled 90x15mm or 100×15 ml aseptic disposable plastic petri plate.

7. Incubate plates at 25°C with a photoperiod of 8hrs under white fluorescent light. Incubate for a total of 5 days.

8. Examine seeds at 3 days looking for characteristic hyphae and/or pycnidia. Stereomicroscopic examination should be used to confirm the identification. Record results (for most quarantine

tests the presence of characteristic hyphae and/or pycnidia would result in a yes or + being recorded for that sample).

9. Re-examine seeds at 5 days again looking for characteristic hyphae and/or pycnidia.

REFERENCES:

Iowa State University. Seed Testing Laboratory. Ames, IA.