

Abstract

Phacidiopycnis rot, caused by *Phacidiopycnis piri*, is a newly recognized postharvest disease in pear fruit (*Pyrus communis* cv. d'Anjou) in the United States. To determine the prevalence and incidence of this disease, decayed fruit were sampled during packing and repacking operations from four packinghouses in 2001 and 2002. During March to May (repacking) in 2001, Phacidiopycnis rot was found in packed fruit that were stored in cardboard boxes from 22 of 26 grower lots (orchards), and accounted for 5 to 71% of the total decay. Phacidiopycnis rot, gray mold caused by *Botrytis cinerea*, and blue mold caused by *Penicillium* spp. accounted for an average of 34.1, 10.3, and 33.6% of decayed fruit from conventional orchards, respectively; and 22.8, 35.7, and 23.5% of decayed fruit from organic orchards, respectively. During November 2001 to January 2002 (packing), Phacidiopycnis rot was observed in fruit that were stored in field bins before packing from 30 of 33 grower lots, accounting for 18.4% of decayed fruit sampled. During March to May in 2002, Phacidiopycnis rot was responsible for 2 to 68% of decayed fruit sampled from 36 of 39 grower lots. Phacidiopycnis rot, gray mold, and blue mold accounted for an average of 19.6, 26.8, and 37.4% of decayed fruit from conventional orchards, respectively; and 42.2, 25.7, and 8.2% of decayed fruit from organic orchards, respectively. Most Phacidiopycnis rot that occurred in field bins before packing appeared to originate from wound infections; whereas after packing, approximately 60 and 30% of Phacidiopycnis rot originated from stem and calyx infections, respectively. This study indicates that Phacidiopycnis rot should be considered one of the targets for control of postharvest diseases in d'Anjou pears in the region.