

# Disease Notes

**An *Acremonium* Endophyte of *Lolium perenne* Associated with Hyperthermia of Cattle in Pacific County, Washington.** A. D. Wilson, C. C. Gay, and S. C. Fransen, Regional Plant Introduction Station, USDA-ARS, Department of Veterinary Clinical Medicine, and Department of Agronomy and Soils, Washington State University, Pullman 99164. *Plant Dis.* 76:212, 1992. Accepted for publication 20 September 1991.

Clavicipitaceous endophytes are well known for causing maladies of livestock. Recent studies of a new syndrome causing hyperthermia of cattle in Pacific County, Washington, prompted surveys of endophytes in pasture grasses of seven affected paddocks. Cattle removed from affected pastures and fed alfalfa became normothermic within 3 days, suggesting a pyrogenic factor in feed. Tillers of dominant grasses and rushes, including *Agrostis palustris* (Huds.) Pers., *A. tenuis* Sibth., *Alopecurus pratensis* L., *Festuca arundinacea* Schreb., *Holcus lanatus* L., *Lolium perenne* L., and *Juncus effusus* L., were examined for endophytic fungi. An anamorphic endophyte infecting *L. perenne* was found in four fields at infection rates of 16, 17, 25, and 30%. The endophyte was identified as an *Acremonium* species that appeared morphologically distinct from *A. lolii* Latch, Christensen, & Samuels and *A. typhinum* Morgan-Jones & W. Gams. The fungus also grew faster in vitro (1.2-2.6 mm per day) on 3.9% PDA at 25 C than most anamorphic endophytes. This report provides the first evidence of a possible association between the *Lolium* endophyte and a hyperthermia syndrome of cattle in the western United States.