The ability of two strains of the antibiotic-producing bacillus *Aneurinibacillus migulanus* to control *Dothistroma septosporum* infection of pine was tested in artificial inoculation experiments on 2-year-old *Pinus contorta* plants. Disease severity (% needles with conidiomata) on control plants was 5.8 ± 1.7%, compared with 6.2 ± 2.0% on plants treated with *A. migulanus NCTC 7096*. In contrast, treatment with *A. migulanus Nagano* reduced Dothistroma needle blight (DNB) severity to 1.1 ± 0.4%. The conidial density and percentage germination of *D. septosporum* on needles were also greatly reduced on seedlings treated with *A. migulanus Nagano* compared with the *A. migulanus NCTC 7096* and control treatments. The results suggest that *A. migulanus Nagano* has potential as a biological control agent for use against DNB in forest nurseries.