



US005665672A

United States Patent [19]

[11] Patent Number: **5,665,672**

Lucas

[45] Date of Patent: ***Sep. 9, 1997**

[54] **FUNGICIDAL COMPOSITIONS FOR THE TREATMENT OF CROWN AND ROOT ROT IN TURFGRASS**

[75] Inventor: **Leon T. Lucas**, Raleigh, N.C.

[73] Assignee: **North Carolina State University**, Raleigh, N.C.

[*] Notice: The term of this patent shall not extend beyond the expiration date of Pat. No. 5,336,661.

[21] Appl. No.: **595,348**

[22] Filed: **Feb. 1, 1996**

Related U.S. Application Data

[63] Continuation of Ser. No. 241,785, May 12, 1994, abandoned, which is a continuation-in-part of Ser. No. 3,632, Jan. 13, 1993, Pat. No. 5,336,661.

[51] Int. Cl.⁶ **A01N 55/02**

[52] U.S. Cl. **504/126; 504/127; 504/143; 504/190; 504/194; 514/141; 514/491**

[58] Field of Search **514/141, 491; 504/126, 127, 143, 190, 194-301**

[56] References Cited

U.S. PATENT DOCUMENTS

4,139,616	2/1979	Ducret et al.	424/222
4,698,334	10/1987	Horriere et al.	514/141
4,806,445	2/1989	Horriere et al.	514/141
5,336,661	8/1994	Lucas	504/126

OTHER PUBLICATIONS

FORE Specimen Label, Apr. (1985).

CHIPCO Specimen Label, (1992).

Primary Examiner—José G. Dees

Assistant Examiner—Brian G. Bembenick

Attorney, Agent, or Firm—Bell, Seltzer, Park & Gibson

[57] ABSTRACT

Fungicidal compositions for the protection of turfgrass against crown and root rot are disclosed. The compositions comprise, as the active material, a mixture of (a) a monoester salt of a phosphorous acid (preferably aluminum ethyl phosphite), and (b) an ethylene bisdithiocarbamate contact fungicide (preferably manganese-zinc ethylene bisdithiocarbamate). Preferred compositions comprise one part by weight of the monoester salt to two parts by weight of the ethylene bisdithiocarbamate.

19 Claims, No Drawings