

[54] **BROADCAST DISSEMINATION OF TRACE QUANTITIES OF BIOLOGICALLY ACTIVE CHEMICALS**[75] Inventor: **Roger L. Kitterman**, Tonopah, Ariz.[73] Assignee: **Albany International Corporation**, Albany, N.Y.[22] Filed: **Sept. 19, 1975**[21] Appl. No.: **615,062**[52] U.S. Cl. **239/1; 47/DIG. 4; 239/142; 239/171; 239/172; 239/654**[51] Int. Cl.² **A01C 15/04; B05B 17/02**[58] Field of Search **71/64 B, 64 DB, 64 F, 71/64 G; 47/1, 9, 48.5, 57.6, DIG. 4, DIG. 9; 111/1, 10, DIG. 1; 239/1, 8, 9, 10, 142, 148, 171, 172, 654, 655; 424/32-37**[56] **References Cited****UNITED STATES PATENTS**

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[57] **ABSTRACT**

A method and apparatus are provided for evenly disseminating by broadcast techniques trace quantities of biologically active chemicals such as nutrients, insecticides, fungicides, growth regulators and the like. The biologically active chemical is encapsulated in a microdispenser such as a filamentary conduit of regulated cross-section and length. The filled microdispensers are then metered into a moving carrier fluid stream, preferably air, and the carrier fluid containing the microdispensers is then evenly dispensed throughout the area. In an alternate preferred embodiment, the microdispensers are coated with a second material which may be either another biologically active material or a sticker for attaching the microdispenser to living organisms such as plants or animals. The method and apparatus is also applicable to biologically active chemicals contained in laminated microdispenser structures for dissemination and release.

5 Claims, 11 Drawing Figures