

## SYNTHETIC ENVELOPES FOR PLASTIC DRAIN TILES IN FLORIDA

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*Abstract.* Subsurface drains in Florida sands need an envelope material installed between the corrugated plastic tubing and the sandy profile to minimize silting. Gravel has been used for many years, but it is no longer available at reasonable cost in central and south Florida. Synthetic fabrics are now used exclusively and with success in locations not subject to clogging from ochre (iron deposits) and associated slimes. The 3 principal materials being installed at present

are spun bonded nylon, spun bonded polypropylene, and knitted polyester sock. Data on the frequency of clogging from bacterial-induced ochre in association with the 3 fabrics were evaluated in plexiglas chambers under controlled conditions in the laboratory. The knitted polyester showed the least clogging in all studies whether the fabric was placed on the surface of the soil or in drain configurations in the bottoms of plexiglas chambers. Surveys of selected drainage sites were conducted in Florida and 4 other states. Ochre clogging in Florida drains seems to occur first in the slots and valleys of the tubing and can be present in amounts sufficient to cause drain failure. The numbers of drains with polyester socks in ochreous sites in Florida were not sufficient to clarify whether or not the knitted polyester fabrics should be the only choice for severe ochre prone areas.

## MICROCOMPUTER SOFTWARE SOURCES FOR FLORIDA AGRICULTURE

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*Abstract.* This paper discusses some basic concepts related to microcomputer software that are often misused in the literature and by microcomputer users. Specifically, basic concepts in microcomputer hardware and software are discussed. Also, software sources for agriculture are classified in such a way that they present the front ends from which the user can obtain software from a currently evolving dy-

namic structure for the diffusion of microcomputer technology in agriculture. These sources are classified as 1) industrial, 2) user groups and 3) public institutions.

At the current state of diffusion, user groups are the most important source for general support software, industrial software houses for business types of applications and, due to the high level of expertise required in their development. The Cooperative Extension Service is rapidly becoming the main source of specialized agricultural software. The software developed by public institutions takes advantage of an established communications structure for establishing software development and diffusion priorities. A clear evolution of the typical extension publication, i.e. the fact sheet, into software is now apparent.

The text of this presentation is available from the authors upon request.