

PLANNING FOR AN IRRIGATION SYSTEM by the American Association for Vocational Instructional Materials, a non-profit organization whose objective is to develop such materials in the area of engineering technology. A 100-page manual; color illustrations. Price, \$6.50. Published June 1971.

Text helps determine the merits of installing a system if a new one is planned, or to determine if an existing installation is the one best fitted to needs.

Information is provided for considerations in selecting an irrigation system. Aids suggested can be adapted to any part of the country. Procedures for estimating sys-

tem costs and returns are included.

Non-technical approaches to various problems such as need for water, time and amount needed, and quality of water being used are a part of text.

Manual also deals with the various methods of applying water and the types of systems available. Merits of each are examined from standpoint of installation site, soil, etc. Portable, permanent and automatic systems plus automatic controls are covered.

Technical Competence

Though the association credit states that the book is published in cooperation with the Soil Conserva-

tion Service, more than three full pages of acknowledgments and credits are listed in the back of the manual. These include many university staff members plus practically every company which manufactures either complete systems or components.

Availability

For copies, write the association direct at its Georgia headquarters (Amer. Assn. for Vocational Instructional Materials, Engineering Center, Athens, Ga. 30601, or Tel. 404/542-2586). A catalog is also available for some 20 additional instructional manuals plus filmstrips, slides, and other visuals.

insect report



**TURF INSECTS
FALL ARMYWORM**

(*Spodoptera frugiperda*)

ALABAMA: Larvae damaged Coastal Bermudagrass in Geneva County field.

CHINCH BUG

(*Blissus leucopterus leucopterus*)

SOUTH CAROLINA: Heavy and some lawn damage in Clemson area, Pickens County. MAINE: Reports of lawn injury continue; invading homes in southern and central areas.

A TREEHOPPER

(*Gargara genitsae*)

OREGON: Collected adults on Scotch broom (*Cytisus scoparius*) on July 27, 1970 near Corvallis, Benton County. This is a new state record. Recorded from Washington, Connecticut, New Jersey, Italy, Spain, Austria, Germany, France, and England.

INSECTS OF ORNAMENTALS

AZALEA CATERPILLAR

(*Datana major*)

VIRGINIA: Larvae damaging azaleas at a home in Gloucester County.

AN ARMORED SCALE

(*Phenacaspis cockerelli*)

SOUTH CAROLINA: Reported from Horry County on magnolia. This is a new county record.

TREE INSECTS

VARIABLE OAKLEAF CATERPILLAR

(*Heterocampa manteo*)

MISSOURI: Heavy moth flights at lights in Boone County.

OAK LEAF TIER

(*Croesia semipurpurana*)

PENNSYLVANIA: Heavy to complete defoliation ob-

served in 1,000 acre area of Cumberland County (second year infestation); light to moderate defoliation (under 60 percent) observed in 700 acre area and heavy to complete defoliation in 6,300 acre area in Union County with increasing trend.

A NOTODONTID MOTH

(*Symmerista canicosta*)

MICHIGAN: Defoliation noticeable in Wolf Lake Area, Lake County and in East Lake, Manistee County. In Muskegon and White Cloud areas, Newaygo County defoliation just started. Complete defoliation expected at all of these sites.

WALKINGSTICK

(*Diapheromera ferromata*)

OKLAHOMA: All stages caused heavy defoliation of oaks (mainly black) in scattered areas of southern Le Flore County. Largest area (3 or 4 square miles) 5 miles south of Big Cedar, but 4 other smaller areas found on State Highway 1 between U.S. 271 and U.S. 259. Defoliation up to 100 percent.

AN EURYTOMID WASP

(*Eudecatoma marylandica*)

PENNSYLVANIA: Sixteen adults emerged from gouty oak gall caused by *Callirhytis punctata* (a cynipid wasp) collected in January from oak (laboratory rearing) near Auburn, schuykill County. This is a new state record.

A CONIFER SAWFLY

(*Neodiprion* sp.)

OKLAHOMA: Second-generation pupation nearly complete in area; caused heavy defoliation to shortleaf pine in some areas. Latimer County, including Robbers Cave State Park, again had heavy widespread infestations. Smaller spots reported in southern Latimer County, Snow, Albion, and Antlers areas of Pushmataha County, Daisy area of Atoka County, and Halleyville and Hartshorne area of Pittsburg County. Many spots larger and more heavily damaged by this generation than by first.

MIMOSA WEBWORM

(*Homadaula anisocentra*)

OKLAHOMA: Light to heavy on mimosa in Antlers, Pushmataha County, for a new county record.