PERILOUS GYPSY MOTH FOUND IN WOODS HERE

A GYPSY MOTH, a member of an entomological species which defoliated several million acres of East Coast forests earlier this year, has been found for the first time in Illinois.

The moth, a male, was trapped in a Cook County Forest Preserve. State Department of Agriculture officials believe the moth may have traveled here in a tourist's car or in a truck shipment. They asked the public to be on the alert for other moths.

Male gypsy moths are brown and females are white with wings marked by dark lines.

Lonnie Matzenbacker, the department's horticultural inspection supervisor, said that because autumn is so near, there is no real danger of damage to forests and fruit trees.

Matzenbacker said after the first frost, his agency will begin looking for egg masses and destroying them. The moths can be controlled with pesticides but officials don't want to take that step unless the moths appear in great numbers.

The moth larvae can eat as much as one square foot of leaf per day. Anyone finding a gypsy moth is asked to report it to the agriculture department's division of plant industry, 999 N. Main St., Glen Ellyn, telephone 469-8621.

SAY YOU SAW IT IN THE "BULL SHEET"

MINIMUM ALLOWABLE GRADES FOR TILE DRAINAGE LINES

By C. E. Stewart

The excess rainfall received in 1972 in the Chicago area revealed numerous low spots in many golf courses where water ponded and many superintendents found it necessary to remove this water by installing drain tile in 4", 6" or 8" in size depending on the extent of the area to be drained. In some instances it was found difficult to get sufficient pitch, or slope, for the new tile lines.

In suggesting the following minimum slopes for such tile lines it must be borne in mind that a considerable amount of silt and sand wash into the line, and although catch-basins should be provided to retain the silt, it is also necessary for the drainage water to flow through the tile at a velocity which will keep the silt in suspension and prevent it from settling on the bottom of the tile and eventually to a point where the tile becomes blocked and useless. A water velocity of three feet per second appears to be the minimum velocity when silt is kept in suspension and which would prevent it from settling in the tile. To obtain this minimum water velocity the following formula is suggested for 4", 6" and 8" lateral tile lines:

$$\frac{100}{5 \times D \dagger 50}$$

D being the diameter of the tile in inches.
The above formula indicates that the **minimum** slope in feet per 100 lineal feet is as follows: —

Inside diameter of tile in inches	Minimum slope in feet per 100 lineal feet
4"	1.40 feet
6"	1.30 feet
8"	1.10 feet

The **maximum** grade is of course limited only by the surface slope of the ground.

Whoever acquires knowledge but does not practice it, is like one who plows a field but does not sow it.