

# NIGHT CREATURES

## UKentucky researchers delve into life of black cutworms

By MICHAEL KENNA

Dr. Dan Potter and graduate student Chris Williamson of the University of Kentucky have been examining and probing putting greens at all hours to discover more about the behavior of black cutworms.

These thick-bodied caterpillars are from 1 to 2 inches long when fully grown. The night-flying, female adult moths, with a wing span of 1-1/4 to 1-1/2 inches, lay eggs on grasses. Larvae feed at night and hide in holes, under debris, or in the thatch and soil surface of the ground during the day. Breeding continues throughout the warm months of the year, and there may be several generations per season.

One of the experiments determined the behavioral response of larval cutworms to aerification and/or top dressing. Half of each plot received a different treatment, such as aerified or not aerified, with or without sand top dressing. The two management regimes, or "choices," were enclosed with galvanized steel driven into the bentgrass green.

Thirty cutworms were added to each enclosure and could choose the turf featuring either management treatment. After the cutworms were allowed to establish burrows in the turf, a soap drench was used to bring them back to the surface. The number of cutworms choosing each management regime, and the proportion occupying aerification holes was determined.

Contrary to their expectations, Potter and Williamson found the cutworms showed no preference between aerified and non-aerified areas in the green. This was also true when both aerified

and non-aerified areas were top dressed with sand. However, of those cutworms that became established in the aerified plots without top dressing, 61 percent were in the aerification holes. When aerified plots were top dressed with sand, the cutworms preferred the non-aerified, non-top dressed turf. Cutworms also preferred plots that were aerified only over those that were both aerified and top dressed.

Potter and Williamson also

documented where the female moths lay their eggs and how routine mowing affects egg distribution. Greenhouses and field studies indicate that a single egg is laid on the terminal end of bentgrass leaves mowed at 1/8 or 3/16 inch, or not mowed at all. More important, mowing removed 90 and 81 percent of the eggs laid on the 1/8- and 3/16-inch high bentgrass, respectively. They concluded that most of the eggs laid on golf greens

are mechanically removed by normal mowing practices.

If cutworm eggs are removed by mowing, then where do the cutworms found on greens come from?

Potter and Williamson believe the cutworms migrate from the higher mowed turf areas on the putting greens during the night. Their research efforts this year will focus on the number and size of cutworms that invade putting green turf from the surrounds. If



this type of migration actually occurs, then a reduced amount of insecticide could be used on smaller larvae hatching in the green surrounds. Until then, remember to fill those aerification holes with sand top dressing!

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## Tom Priest

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three or four guys doing well, we have a pizza party for everybody. If you get that person involved, those are 'his' holes."

A native of Johnstown, Ohio, Priest played in two U.S. Open qualifying rounds. He feels superintendents should golf. When they do, he said, they see the course from a player's standpoint. "You spot things that can speed up play and get the golfers around and make it as simple as you can for everybody."

"My theory is that the course should be the same condition every day, whether Fuzzy's here playing or some guy is coming out and paying \$45 green fees."

A nine-year member of the Golf Course Superintendents Association of America as well as its Central Ohio chapter, Priest plans to move with his wife and two children here in the coming year.