(con't. from page 4)
Syringing the turf when exudate is present in the early morning will quickly wash this material back into the soil., Clean water dries more rapidly than exudate, therefore less clippings adhere to the mowers. It is interesting to note that over forty years ago, Dr. Fred Grau, after making a survey of member clubs, found that greenkeepers (as they were called then) that practiced early morning watering had far less disease than those who didn't. Today we know that it was not the time of watering, but that the washing off of the exudate minimised the incidence of disease. Golf course superintendents have always been a very important part of turgrass research. In practicing their science and art, they found many ways to combat problems that seemed to have no answers.

This liquid, first found and reported in Egypt in 1893 was referred to as guttated water, Guttated water and exudated water are on e and the same, and can be found reported either way in the literature.

Dr. Wilson also made another interesting discovery. he found that all grasses do not exudate at the same rate. He classified each of the turfgrasses in the following order: the Bentgrasses, Bermudagrasses, and Poa Annua were prolific pumpers of exudated fluid. The Bluegrasses were medium pumpers (except Poa Annua). We can also include St. Augustine grasses as medium pumpers. The Fescue grasses, Zoysia grasses and the Rye grasses were the low pumpers.

When we lose grass for some unknown reason, we need to find the answers. When 18 greens are lost overnight, we need to take a hard look at our management practices and an even harder look at research. We need research that gives us answers to problems and not just cures.

Starting with the management of the soil, we concentrate on the need to relieve compaction so that air, and nutrients canmove int othe root zone. What about exudated liquid? An open pourous soil allows the exudate to be diluted and washed down into the soil to be recycled. aerification. therefore is essential to minimize or

We know that we can rely on some research, some theory, and lots of green thumb hands on experience to keep grass alive during periods of stress.

We also desperately need more meaningful research to seperate dew from exudate. As we get the answers. turfgrass management will become more biological and cultural than curative.

MEMBERSHIP-MARCH 1989

Members Today-30 day waiting period up

Class D

Larry Coving, Colusa G&CC
Kevin Smith, Moffett Field GC
Paul Gillis, Summitpointe GC, Milpitas

Class F

Richard McAllister, Rancho Solano GC, Fairfield
Mike Eisele, Country Club Sales, Inc. Benicia
Charles Messimer, Braman Pipe & Supply
Bob Whittaker, Western Lawn Equipment Co.
Hal Bonnet, Sierra Chemical Company, Milpitas

Current 30 day waiting period

Class A

D.J. (Donald) Pakkala, Pebble Beach Co.

Class D

Daniel A. Giammona, Sharon Heights G&CC
Andrew McBride, Spanish Bay GC

Class F

Donald D. Radford, Asst. Dirctor of Parks, City of South Lake Tahoe
Craig Stenehjem, R.V. Cloud Co. Campbell

CONGRATULATIONS TO PETER J. GALEA

Crystal Springs GC, Burlingame for becoming a Certified Golf Course Superintendent.

OUR HOST AND HIS COURSE FOR MARCH:

Our host superintendent, **Ray Sabbaattini,** has spent his life farming. In 1970, Ray was retained as the Golf Construction Supt. and supervised construction of a secong 18 holes and stayed on as the Golf Course Supt. **Rick Key**, graduated from Chico State University in Biological Science. He worked on the original turkey ranch and has been with Ridgemark for 1 1/2 years.