

Station, and they should find out quite a bit about the scale before next spring. At the present, a 3% chlordane emulsion spray is recommended for its control in the crawling stage.

Injurious Effects of Salts

"Saline soils and water problems in West Texas and Oklahoma" was discussed by Mr. C. Wallace Miller, Agronomist, C.A.A., Ft. Worth, Texas. The western part of Texas and Oklahoma are in a low rainfall belt. When for any reason the drainage of an arid-region soil is impeded, conditions become such as to favor the accumulation of soluble salts at or near the surface. This phenomenon is due to evaporation accompanied by an upward capillary adjustment of the soil water, which gradually carries the excess salts to the surface. Such a concentration or accumulation is called alkali. This renders the soil practically useless for agricultural purposes, and brings forth a problem to be solved before these soils are made productive. During periods of rainfall, the salts move downward through leaching, and these areas may be productive, but in dry years, they are often quite sterile, because the salts have moved upward into the root region of the plants. A saline condition may be handled in three general ways to avoid the injurious effects of salts. The first of these is eradication; the second is a conversion of some of the salts to less injurious forms; while the third may be designated as control.

Eradication is used in three ways; (1) Leaching with underdrainage, (2) Scraping, and (3) Flushing. Of these, flooding after tile drains have been installed is the most thorough and satisfactory. When this method is used in an irrigated region, heavy and repeated applications of water can be made and the alkali leached from the soil and drained off through the tile.

Conversion: Gypsum and sulfur are used to advantage to convert the harmful salts to sulphates, thus reducing the harmful effects of the soluble salts. These chemicals are applied to the soil, and they chemically combine with the soluble salts and convert them to sulphates, which are mostly insoluble.

Control: The retardation of evaporation is, of course, an important feature of alkali control. The intensive use of a soil mulch is advantageous, especially on irrigated areas where saline soils are often found. An organic mulch, such as peat moss, would be ideal.

Officers Elected

In the evening an informal get-together was held in the Topaz Room at the Tulsa Hotel courtesy of Goldthwaite's Co. of Texas and Bob Dunning-Jones, Inc. of

Tulsa. Immediately following the get-together was the banquet with Charles Hamm, Tulsa, officiating as master of ceremonies. The menu included ham, peas, salad, and ice cream for dessert. Short speeches were made by Agar Brown, Scotty McLaren, Toro Manufacturing Corp., Minneapolis, Perry Maxwell, Golf Course Architect, Tulsa, and Dr. Fred Grau. Enthusiasm was high, and everyone lauded the success of the conference. Scotty McLaren stated that the greens maintenance men should not be called greenkeepers but should bear the title of superintendents, because they have to be master mechanics, chemists, agronomists, good-will men, scientists, and "astrologists". They are specialists in their field and have a profession instead of a job. After these talks, the group was dismissed, and the two turf associations had their respective business meetings, in which they made plans for the following year and elected officers.

The following officers were elected by the Texas Turf Association: Pres., Frank Goldthwaite, Ft. Worth; VP, James Stewart, Ex.-Sec. of the Southwest Athletic Conference, Dallas, Texas; Sec.-Treas., R. C. Potts, Texas A&M.

The Oklahoma Turf Association elected John Price, Southern Hills CC, Tulsa, Pres.; Ben G. Owens, VP, Intramural Athletics, Oklahoma University; Harrell Butler, 2nd VP, Oklahoma CG&CC; Alex Repin, Treas., Tulsa CC; Bob Dunning, Sec., Tulsa, and Bob Ervine, Honorary Pres., Oaks CC, Tulsa.

Arizona Supts. to Form Maintenance Assn.

Superintendents of Arizona courses met Jan. 20 at Phoenix, Ariz., as guests of Alva and Glenn Shaw and discussed formation of an Arizona greenkeepers' association. Present were Dick Ginch, Arizona Biltmore, Phoenix; Phil Hanson, Phoenix CC; Joe Sanders, Wickenburg; Mike Perow, Mesa; Jay Woodward, Arizona CC; Preston Childers, Encanto CC, Phoenix; Cecil Watkins, Litchfield Park; Peter Narvette, San Marcos.

Wives of the superintendents were guests of Mmes. Alva and Glenn Shaw while the husbands considered formation of their sectional organization and exchanged ideas on how to develop and maintain fine golf turf on reclaimed desert where the temperature ranges from below freezing to 120° F. Achievements of these men in producing first class playing conditions shows amazing results of brains, blisters and sweat.