

factorily with the frozen crop for over 75 days, the average sugar yield for the period being well over 6.5 percent of 96° test, the suitability of this region for growing sugarcane types adaptable to prevailing environmental conditions has been amply demonstrated.

WEATHER CONDITIONS DURING THE FREEZE AND THE CROP SEASON

Fig. 1 shows the thermographic record of temperatures at Clewiston, 30 inches from the ground surface in the field during the week of Dec. 8 to 15, 1934, inclusive. It is seen that the temperature remained below freezing for eight hours on the nights of both the 11th and 12th. A minimum of 27° F. was recorded on the night of the 11th and 21° F. on the night of the 12th. These temperatures have no counterpart at such an early date in the official weather records of the Everglades. The U. S. Department of Agriculture Weather Bureau reported minimum temperatures of 25° F. close to Lake Okeechobee in 1917 (18 years previous), but these occurred early in February. In 1895 (or 40 years previous), records at Tampa, considerably north of this region, show minimum temperatures similar to those of this season, but here again, these occurred in February. Such low temperatures occurring so early in December in this region would appear to have a probability of being recorded only about once in 50 years or longer.

Rainfall during the period from Dec. 1, 1934 to Feb. 9, 1935, amounted to only a total of 1.90 inches in Clewiston, which precipitation was typical of the area with frozen cane under observation.

Since the deterioration of sugarcane after a freeze depends so largely upon weather conditions, especially the average daily temperature, these have been compared this season with those for the same period during the previous year when no freeze was experienced. This information might also be of interest to other observers in sub-tropical countries where sugarcane is grown, and is also periodically subjected to freezing temperatures.

During the period Dec. 11, 1934 to Feb. 9, 1935, when frozen cane was being ground continuously, Fig. 2 shows that there were three periods, viz. from Dec. 11 to 20, Jan. 5 to 10 and Jan. 22 to 29, inclusive, when the average daily temperature during the present crop season was distinctly below that of last