Form B-Sem-10, '61(C3520)

UNIVERSITY OF CALIFORNIA
DIVISION OF AGRICULTURAL SCIENCES
AGRICULTURAL EXPERIMENT STATION

PROJECT NO. 1066 PG. 252
REPORTED BY S. B. Schultz
Project Leader
Davis - Ag. Engineering
Campus and Department
DATE December 31, 1962

Survey of wind conditions in San Joaquin Delta. For surveying the character of winds that cause peat land erosion, the key-station at Terminous was operated from April until the middle of November for the fifth consecutive year. Also, stations on Bacon Island and Upper Jones Tract were installed again for the purpose of correlating the conditions at the southern part with Terminous, and for examining special weather situations that influence the three locations in different ways. For the same purpose, a recording barometer station was added at Terminous. Other barometer records will be available in the State Department of Forestry which initiated in 1962 an observation program in support of the activities of the forest fire service.

By this date, only the results of the key-station recordings can be reported, which are summarized in the attached tables. In Table 1, it can be seen that the number of days having velocities of 10 mph, or more, was large in all months of the season, in contrast to previous results in which the highest velocities were greatly concentrated in May and June. The distribution of directions, however, did not vary from previous years. This is indicating that no specific weather conditions can be made responsible for the wind increase, but only a more intense sea breeze development.

Also in Table 3--containing the number of hourly occurrences of high wind speeds--the windiness in midsummer appears high. A look at the second line, however, is more relevant because it contains the critical velocities for raising dust. The figures in this line show a greater resemblance to the previous years' data, as a definite decrease from June on is noticeable. But the month of August stands out as the exception, having almost as many

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hours over 15 mph as had the month of June. Also a comparison with the 5-year period shows the anomaly of August 1962:

	May	June	July	Aug.	Sept.	
Ave. 1958-62	111	64	16	17	22	hours
1962 alone	65	40	13	34	24	hours

From these figures can also be learned that May and June were milder than usual, whereas July and September were near normal.

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Terminous 1962 Wind Survey

Table 1. Number of days with at least one hourly velocity over 10 mph

	April	May	June	July	Aug.	Sept.	Oct.	Total
No. of days with records	23	31	30	31	31	30	31	207
No. of days vel. over 10 mph	18	29	25	26	20	18	16	152
Same with dir. from WSW-NNW	13	27	25	26	20	18	9	138
Same in % of all days over 10 mph	72	93	100	100	100	100	56	91

Table 2. Prevailing directions for velocities over 10 mph (April to Oct.)

Directions	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE	Total
No. of days	0	0	0	61	62	13	0	9	0	0	0	0	0	0	0	3	150
Same in %	0	0	0	41	41	10	0	6	0	0	0	0	0	0	0	2	100

Table 3. Frequency of hours of high velocities for the various months

	April	May	June	July	Aug.	Sept.	Oct.
No. of hours over 10 mph	212	271	196	191	154	122	165
No. of hours over 15 mph	90	85	40	13	34	24	60
Ave. duration of one daily period over 10 mph	11.8	9.4	7.8	7.3	7.7	6.8	6.4

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