FIRE WEATHER REVIEW

JARRAH AND KARRI FOREST REGIONS

1958 - 1959

by A. B. Hatch

Fire weather forecasting for the jarrah forest region commenced on the 27th October, 1958, and continued until the 13th April, 1959, a total of 169 days. Karri forest forecasts commenced on the 19th November and continued until the 13th April (140 days).

JARRAH FOREST REGION

Rainfall

In the jarrah forest region the rainfall was very close to the monthly averages for the four months October to January. In February and April the rainfall was well above average, the February rainfall being due to thunderstorms associated with tropical troughs of low pressure. In association with these thunderstorms 95 and 47 points of rain were recorded on the 8th and 28th February, respectively. The higher than normal April rainfall was due to the early break of season rains experienced throughout the Lower South-West.

March was the driest month of the fire season, with only isolated light showers, giving a total of 18 points of rain for the month.

Temperature

Maximum temperatures were above average for the period November - March, the month of December showing the greatest departure from normal (+5.9°F).

Several periods of extreme temperatures were experienced throughout the summer and fifteen days with temperatures greater than 96°F. were recorded. This number is similar to the previous fire season, (17 days), but much higher than the 1956/57 fire season (7 days).

The highest temperature recorded at Dwellingup during the summer was 103.5°F. on the 11th March, 1959.

Relative Humidity

Air masses throughout the summer were not abnormally dry and the Average Index of Mean Relative Humidity was very close to normal for all months except November and December. In these two months the Index was 9 and 7 per cent lower than normal.

Throughout the fire season 37 days were experienced with a minimum daily relative humidity of less than 25 per cent.

Fire Hazard

The mean fire hazard for the jarrah forest region was 5.8, which is 0.8 units lower than the previous year.

The monthly distribution of fire hazards is shown in Table (7) and the mean monthly fire hazards are tabulated in Table (8).

There were 32 severe summer and dangerous days recorded throughout the summer and the first dangerous day occurred on the 16th November, 1958.

The most prolonged dangerous fire hazard period occurred from the 18th to 22nd February, 1959, when five consecutive dangerous days were recorded.

The distribution of severe summer and dangerous days over the last five Fire Seasons is as follows:

TABLE 9

Year	No. of Days		
	Severe Summer	Dangerous	Total
1954/55	15	6	21
1955/56	29	11	40
1956/57	16	6	22
1957/58	36	22	58
1958/59	20	12	32

KARRI FOREST REGION

Rainfall

In the karri forest region rainfall was well below average for the period 1st November, 1958, to 31st March, 1959, 4.84" (48 days) being recorded as against the average of 7.15" for the period. The driest month of the summer was February, when only 31 points of rain were recorded.

Temperature

Maximum temperatures were lower in the region throughout the summer, only 5 days greater than 96°F. being recorded, as against 9 days for the previous year.

Several isolated days of high temperature occurred throughout the summer, but there was only one period of four days, the 18th - 22nd February, where heat wave conditions occurred. During these four days the lowest maximum temperature was 96°F.

The highest temperature recorded at Pemberton during the summer was 100°F. and this occurred on 19th and 21st February, 1959.

Relative Humidity

On 16 days relative humidities of 25 per cent of less were recorded. It is of interest to compare these figures with Dwellingup, where during the period, 37 days of less than 25 per cent F.H. were recorded.

Fire Hazard

The mean fire hazard for the karri forest region was 4.5, which is 0.4 units lower than the 1957/58 mean.

There were 3 severe summer and 4 dangerous days recorded compared with 4 severe and 2 dangerous days for the previous year.

The first dangerous day in the karri occurred on the 18th February, 1959, but a hazard of 9.0 was recorded on the 8th January.

Prolonged heat wave conditions occurred from the 18th - 21st February, when four consecutive dangerous days were recorded.

The monthly distribution of karri fire hazards and the mean monthly hazards are shown in Tables 13 and 14, respectively.

TABLE 7

Jarrah Forest Region

Fire Hazard Distribution

1956 - 1959

First Hazard	Month							Total
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
Nil	2	9	3	2	2	-	3	21
Low	2	5	1	1	1	4	4	18
Mod.	1	5	3	7	5	13	4	38
Aver. S.		3	5	6	7	9	1	31
High S.		2	14	5	5	3		29
Severe S.		4	5	6	3	1	1	20
Dang.		2		4	5	1		12
	5	30	31	31	28	31	13	169

TABLE 8

Dwellingup

Mean Fire Hazard

October 1958 - April 1959

Month	No. of Days	Mean Fire Hazard
October	5	2.6
November	30	4.3
December	31	6.6
January	31	6.7
February	28	6.8
March	31	5.9
April	13	3.7
Year	169	5.8

TABLE 13

Karri Forest Region

Fire Hazard Distribution

1958 - 1959

Fire Hazard	Month						Total
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
Nil	2	2	3	2	5	7	21
Low.	3	5	5	8	7	3	31
Moderate	5	16	8	5	8	2	44
Aver. S.	1	7	11	5	9	-	33
High S.	1	1	2	3	2	1	10
Severe. S.			2	1			3
Dang.				4			4
	12	31	31	28	31	13	146

TABLE 14

Mean Fire Hazard

1958 - 1959

Month	No. of Days	Mean Fire Hazard
November	12	3.3
December	31	4.8
January	31	5.1
February	28	5.3
March	31	4.3
April	13	2.1
Year	146	4.5