

REMARKS ON THE METEOROLOGICAL RESULTS AT TORONTO FOR THE YEAR 1891.

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TEMPERATURE.

The mean temperature of 1891 was $45^{\circ}87$, being $1^{\circ}74$ warmer than the average of the past half century, and $0^{\circ}67$ warmer than 1890. This excess is mainly due to the high temperature of the winter and autumn, the summer being cool and slightly lower than the normal, bearing out the fact that Toronto presents great regularity in the annual temperature, combined with great variability in the course of the year. The mean temperature of the several months was in nine instances above, and in three instances below their proper normals, the average excess to the average defect being in the ratio of $2^{\circ}91$ to $1^{\circ}77$. On each of 207 days the mean temperature was above the normal temperature of that particular day, and below on 158 days. The mean temperature of each month, with the difference from the normal, was January, $24^{\circ}15 + 1^{\circ}67$; February, $28^{\circ}02 + 5^{\circ}48$; March, $28^{\circ}81 + 0^{\circ}11$; April, $43^{\circ}24 + 2^{\circ}40$; May, $51^{\circ}51 - 0^{\circ}59$; June, $64^{\circ}34 + 2^{\circ}29$; July, $63^{\circ}60 - 3^{\circ}98$; August, $65^{\circ}56 - 0^{\circ}73$; September, $62^{\circ}49 + 4^{\circ}04$; October, $47^{\circ}91 + 1^{\circ}66$; November, $37^{\circ}05 - 0^{\circ}96$; December, $33^{\circ}64 + 7^{\circ}56$. Dividing the year into the ordinary seasons, we have for winter, $26^{\circ}99$; spring, $53^{\circ}03$; summer, $63^{\circ}91$; autumn, $39^{\circ}53$. The thermic anomalies differ from the normal temperature proper to the latitude. Winter, $-8^{\circ}87$; spring, $-4^{\circ}60$; summer, $-2^{\circ}35$; autumn, $-4^{\circ}80$. The only month during the year in which the observed temperature exceeded the normal value of the latitude was September, which was $0^{\circ}90$ warmer. The mean daily range for the year was $16^{\circ}45$, the greatest monthly average occurring in May ($21^{\circ}12$) and the least in March, $12^{\circ}49$. The greatest range, $37^{\circ}8$, occurred on the 30th April, and the least, $4^{\circ}5$, on the 20th of January. The warmest month relatively was December, estimated by its excess ($7^{\circ}56$) above the normal temperature. The coldest absolutely was January ($24^{\circ}15$), but July was the coldest relatively, its mean ($63^{\circ}60$) being $3^{\circ}98$ below its proper normal. The climatic difference was $41^{\circ}41$. The warmest day was the 16th June, mean temperature $77^{\circ}62$, and the coldest 16th January, with a mean temperature of $5^{\circ}13$, but the warmest day relatively was the 25th September, it being $18^{\circ}80$ above its proper normal, and the coldest the 20th November, which was $19^{\circ}7$ below. The average temperature of the warmest and coldest days from former years was $77^{\circ}87$, and $2^{\circ}28$ below zero. The highest temperature of the year $91^{\circ}9$ occurred on the 16th June; the lowest, $2^{\circ}0$ below zero, on the 16th January. The annual range was from these extremes $93^{\circ}9$, being $1^{\circ}8$ more than in 1890, and $0^{\circ}1$ below the average range. There were thirty-three instances on which the temperature at the hour of observation was 20° above the normal, and only five when a defect of an equal amount occurred. The most striking deviations from the normal curve of temperature have been as follows:—

Jan.	1	mean deviation	$+14^{\circ}57$	Dec.	2 to 5	mean deviation	$+11^{\circ}80$
"	19 to 24	"	$+10^{\circ}94$	"	9 to 15	"	$+12^{\circ}60$
"	28 to 31	"	$+11^{\circ}15$	"	21 to 26	"	$+14^{\circ}15$
Feb.	16	"	$+16^{\circ}75$	"	29	"	$+16^{\circ}55$
"	23 to 25	"	$+12^{\circ}37$	Jan.	3	"	$-14^{\circ}45$
April	22	"	$+17^{\circ}72$	"	16	"	$-16^{\circ}45$
May 8 to 10	"	"	$+11^{\circ}35$	Feb.	4	"	$-15^{\circ}25$
June 15 to 16	"	"	$+14^{\circ}27$	May	16	"	$-11^{\circ}13$
Sep. 17 to 18	"	"	$+12^{\circ}95$	July 7 to 8	"	"	$-10^{\circ}73$
"	21 to 28	"	$+13^{\circ}74$	"	26 to 28	"	$-8^{\circ}65$
Oct. 2 to 5	"	"	$+15^{\circ}42$	Nov. 28 to 29	"	"	$-17^{\circ}74$
Nov. 9 to 12	"	"	$+11^{\circ}82$	Dec.	17	"	$-13^{\circ}10$
"	21 to 23	"	$+11^{\circ}41$				