

MONTHLY CLIMATE REVIEW OVER KOREA

(total 4 pages)

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Release	November 20, 2015				

October 2015 Monthly Climate Summary

- \diamondsuit The nationwide mean temperature (15.0 °C) in October 2015 was 0.7 °C above normal.
- \diamondsuit The nationally-averaged precipitation (64.3 mm) was 134.1 % of normal.
- ☐ Climate features and long-term trends in October 2015 were analyzed with the data collected at the 45 meteorological stations throughout Korea (national average) from 1973 to 2015 (1908-2015 for Seoul).
 - * Normal: Average value of climatic element data collected from 1981 to 2010

☐ The climatic characteristics in October 2015

- o Korea (as a whole),
- The mean temperature (15.0 $^{\circ}$ C), the mean maximum temperature (21.5 $^{\circ}$ C) and the mean minimum temperature (9.6 $^{\circ}$ C) were 0.7 $^{\circ}$ C, 0.7 $^{\circ}$ C, 0.6 $^{\circ}$ C above normal, respectively.
- The nationally-averaged precipitation was 64.3 mm, which was 134.1 % of normal.
- The number of rainy days was 5.8, which was 0.1 days more than normal.
- The total number of hours of sunshine was 244.2, which was 122.5 % of normal.

o Seoul,

- The mean temperature (15.5 $^{\circ}$ C), the mean maximum temperature (21.2 $^{\circ}$ C) and the mean minimum temperature (10.8 $^{\circ}$ C) were 0.7 $^{\circ}$ C, 1.4 $^{\circ}$ C, 0.5 $^{\circ}$ C above normal, respectively.
- The amount of precipitation was 81.5 mm, which was 157.3 % of normal.
- The number of rainy days was 7.0, which was 0.7 days more than normal.
- The total number of hours of sunshine was 239.7, which was 120.6 % of normal.

☐ Long-term¹⁾ trend in October 2015 climate

- o Korea (as a whole),
 - The national mean temperatures in October in the 2000s (2001-2010) was 0.7 °C above than that of in the 1970s (1973-1980).
 - The nationally-averaged precipitation in October in the 2000s was 17.3 mm less than that of in the 1970s.
 - The number of rainy days in October in the 2000s was 1.1 days less than that of in the 1970s.
 - The total sunshine hours in October in the 2000s was 0.1 hours less than that of in the 1970s.

o Seoul,

- The mean temperatures in October in the 2000s (2001-2010) was $1.1 \,^{\circ}$ C above that of in the 1970s (1971-1980).
- The precipitation in October in the 2000s was 7.4 mm more than that of in the 1970s.
- The number of rainy days in October in the 2000s was 1.0 days less than that of in the 1970s.
- The total sunshine hours in October in the 2000s was 4.8 hours less than that of in the 1970s.

^{1) 2000}s: 2001~2010 / 1970s of Korea(Seoul): 1973~1980(1971~1980)

Appendix 1 Climate features of October 2015 (Nationwide)

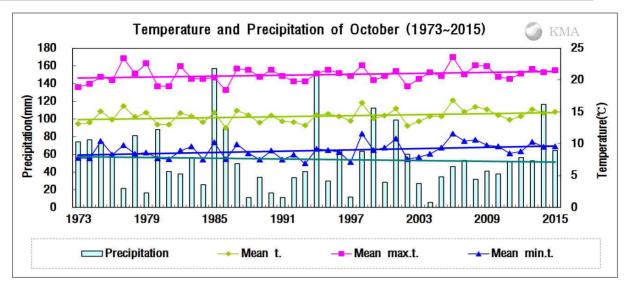


Fig 1. Temperatures (mean, mean maximum and mean minimum) and precipitation in South Korea during October (1973–2015).

☐ The nationwide average value of meteorological element during October (1973-2015)

Elements (whole country)	Oct. 2015(a)	Oct. 2014(b)	Normals of Oct. (1981-2010)(c)	a-b	a-c	Rank since 1973 (within 5th)
Mean temperature (°C)	15.0	14.8	14.3	0.2	0.7	-
Mean maximum temp. (°C)	21.5	21.2	20.8	0.3	0.7	-
Mean minimum temp. (°C)	9.6	9.5	9.0	0.1	0.6	-
Precipitation (mm)	64.3	116.6	50.2	-52.3 (62.7%)	14.1 (134.1%)	
Days of rain (day)	5.8	6.5	5.7	-0.7	0.1	-
Sunshine duration (hour)	244.2	227.1	199.3	17.1 (107.5%)	44.9 (122.5%)	the 2nd highest
Mean cloud amount (1/10)	3.1	3.7	4.1	-0.6	-1.0	the 4th lowest
Days of daily temperature range greater than $10^{\circ}\text{C}(\text{day})$	21.3	20.2	20.7	1.1	0.6	-

☐ The nationwide average value of meteorological element during October in each decade (1973–2010)

Year	Mean temp.	Mean max. temp. (℃)	Mean min. temp. (℃)	Prep. (mm)	Days of rain (day)	Sunshine duration (hour)	Mean cloud amount (1/10)	Days of daily temperature range greater than 10°C(day)
1973-1980(a)	14.1	20.6	8.6	61.0	6.8	196.2	4.3	20.8
1981-1990(b)	14.0	20.6	8.6	51.8	5.9	202.1	4.3	20.8
1991-2000(c)	14.2	20.7	8.7	55.1	5.5	199.8	4.1	21.2
2001-2010(d)	14.8	21.2	9.6	43.7	5.7	196.1	4.0	20.1
2015(e)	15.0	21.5	9.6	64.3	5.8	244.2	3.1	21.3
d-a	0.7	0.6	1.0	-17.3	-1.1	-0.1	-0.3	-0.7
d-b	0.8	0.6	1.0	-8.1	-0.2	-6.0	-0.3	-0.7
d-c	0.6	0.5	0.9	-11.4	0.2	-3.7	-0.1	-1.1
e-d	0.2	0.3	0.0	20.6	0.1	48.1	-0.9	1.2

Appendix 2 Climate features of October 2015 (Seoul)

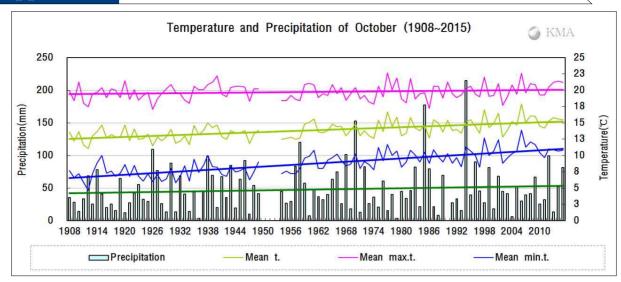


Fig 2. Temperatures (mean, mean maximum and mean minimum) and precipitation in Seoul during October (1908–2015).

☐ The average value of meteorological element during October in Seoul (1908-2015)

Elements (Seoul)	Oct. 2015(a)	Oct. 2014(b)	Normals of Oct. (1981-2010)(c)	a-b	a-c	Rank since 1908 (within 5th)
Mean temperature ($^{\circ}$ C)	15.5	15.6	14.8	-0.1	0.7	-
Mean maximum temp. (°C)	21.2	21.4	19.8	-0.2	1.4	-
Mean minimum temp. (°C)	10.8	10.7	10.3	0.1	0.5	-
Precipitation (mm)	81.5	52.2	51.8	29.3 (156.1%)	29.7 (157.3%)	-
Days of rain (day)	7.0	6.0	6.3	1.0	0.7	<u>-</u>
Sunshine duration (hour)	239.7	239.8	198.8	-0.1 (100.0%)	40.9 (120.6%)	-
Mean cloud amount (1/10)	2.8	3.3	3.9	-0.5	-1.1	the 5th lowest
Days of daily temperature range greater than 10°C(day)	18.0	21.0	14.2	-3.0	3.8	-

☐ The average value of meteorological element during October in Seoul in each decade (1911-2010)

Year	Mean temp. (℃)	Mean max. temp. (°C)	Mean min. temp. (℃)	Prep. (mm)	Days of rain (day)	Sunshine duration (hour)	Mean cloud amount (1/10)	Days of daily temperature range greater than 10°C(day)
1911-1920(a)	13.0	19.5	7.4	38.6	7.4	234.7	4.5	23.1
1921-1930	12.8	19.3	6.9	50.3	6.6	225.0	4.3	23.1
1931-1940(b)	13.4	20.1	7.9	42.0	7.4	232.3	4.2	23.0
1941-1949	13.2	19.9	7.6	52.3	6.8	239.0	4.0	24.6
1954-1960	13.3	19.3	8.1	53.0	7.1	218.8	4.0	20.6
1961-1970	14.2	19.8	9.3	59.7	6.0	211.2	4.1	19.5
1971-1980(c)	14.2	19.7	9.5	34.4	7.1	194.2	4.0	17.9
1981-1990	14.4	19.6	9.8	54.2	6.0	207.5	4.3	15.6
1991-2000	14.6	19.7	10.0	59.3	6.7	199.6	3.9	15.0
2001-2010(d)	15.3	20.1	11.1	41.8	6.1	189.4	3.5	12.1
2015(e)	15.5	21.2	10.8	81.5	7.0	239.7	2.8	18.0
d-a	2.3	0.6	3.7	3.2	-1.3	-45.3	-1.0	-11.0
d-b	1.9	0.0	3.2	-0.2	-1.3	-42.9	-0.7	-10.9
d-c	1.1	0.4	1.6	7.4	-1.0	-4.8	-0.5	-5.8
e-d	0.2	1.1	-0.3	39.7	0.9	50.3	-0.7	5.9