



# MONTHLY CLIMATE REVIEW OVER KOREA (total 4 pages)

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## September 2015 Monthly Climate Summary

- ◇ The nationwide mean temperature (20.5 °C) in September 2015 was same as normal.
- ◇ The nationally-averaged precipitation (55.1 mm) was 33.8 % of normal.

- Climate features and long-term trends in September 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 September 2015

o Korea (as a whole),

- The mean temperature (20.5 °C) was same as normal. The mean maximum temperature (26.2 °C) was 0.3 °C above normal. And the mean minimum temperature (15.6 °C) were 0.5 °C below normal.
- The nationally-averaged precipitation was 55.1 mm, which was 33.8 % of normal. The number of rainy days was 7.0, which was 2.0 days less than normal.
- The total number of hours of sunshine was 222.1, which was 129.4 % of normal.

o Seoul,

- The mean temperature (22.4 °C), the mean maximum temperature (28.1 °C) and the mean minimum temperature (17.5 °C) were 1.2 °C, 2.3 °C, 0.3 °C above normal, respectively.
- The amount of precipitation was 26.0 mm, which was 15.4 % of normal.
- The number of rainy days was 4.0, which was 5.1 days less than normal.
- The total number of hours of sunshine was 262.1, which was 148.8 % of normal.

□ **Long-term<sup>1)</sup> trend in September 2015 climate**

o Korea (as a whole),

- The national mean temperatures in September in the 2000s (2001-2010) was 0.8 °C above than that of in the 1970s (1973-1980).
- The nationally-averaged precipitation in September in the 2000s was 58.5 mm more than that of in the 1970s.
- The number of rainy days in September in the 2000s was 1.8 days more than that of in the 1970s.
- The total sunshine hours in September in the 2000s was 29.4 hours less than that of in the 1970s.

o Seoul,

- The mean temperatures in September in the 2000s (2001-2010) was 1.2 °C above that of in the 1970s (1971-1980).
- The precipitation in September in the 2000s was 94.9 mm more than that of in the 1970s.
- The number of rainy days in September in the 2000s was 1.3 days more than that of in the 1970s.
- The total sunshine hours in September in the 2000s was 25.1 hours less than that of in the 1970s.

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

## Appendix 1 Climate features of September 2015 (Nationwide)

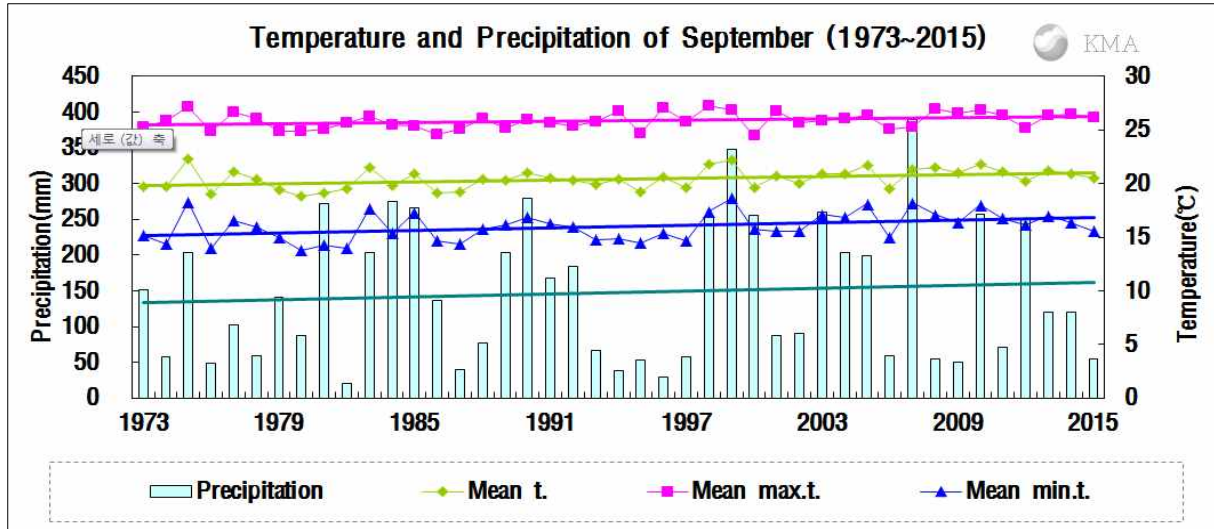


Fig 1. Temperatures (mean, mean maximum and mean minimum) and precipitation in South Korea during September (1973–2015).

### □ The nationwide average value of meteorological element during September (1973–2015)

Elements (whole country)	Sep. 2015(a)	Sep. 2014(b)	Normals of Sep. (1981-2010)(c)	a-b	a-c	Rank since 1973 (within 5th)
Mean temperature (°C)	20.5	20.9	20.5	-0.4	0.0	-
Mean maximum temp. (°C)	26.2	26.5	25.9	-0.3	0.3	-
Mean minimum temp. (°C)	15.6	16.4	16.1	-0.8	-0.5	-
Precipitation (mm)	55.1	119.6	162.8	-64.5 (48.9%)	-107.7 (33.8%)	-
Days of rain (day)	7.0	7.1	9.0	-0.1	-2.0	-
Sunshine duration (hour)	222.1	201.1	171.6	21.0 (110.4%)	50.5 (129.4%)	the 3rd highest
Mean cloud amount (1/10)	4.5	5.3	5.5	-0.8	-1.0	the 4th lowest
Days of maximum temperature more than 30°C (day)	0.9	2.0	3.0	-1.1	-2.1	-
Days of daily temperature range greater than 10°C (day)	16.4	15.6	14.7	0.8	1.7	-

### □ The nationwide average value of meteorological element during September in each decade (1973–2010)

Year	Mean temp. (°C)	Mean max. temp. (°C)	Mean min. temp. (°C)	Prep. (mm)	Days of rain (day)	Sunshine duration (hour)	Mean cloud amount (1/10)	Days of maximum temperature more than 30°C (day)	Days of daily temperature range greater than 10°C (day)
1973-1980(a)	20.1	25.7	15.4	106.6	8.3	185.6	5.5	1.7	16.1
1981-1990(b)	20.1	25.5	15.7	177.6	9.0	176.5	5.7	1.7	14.8
1991-2000(c)	20.4	26.0	15.9	145.7	7.9	182.1	5.1	3.6	15.8
2001-2010(d)	20.9	26.2	16.8	165.1	10.1	156.2	5.7	3.9	13.3
2015(e)	20.5	26.2	15.6	55.1	7.0	222.1	4.5	0.9	16.4
d-a	0.8	0.5	1.4	58.5	1.8	-29.4	0.2	2.2	-2.8
d-b	0.8	0.7	1.1	-12.5	1.1	-20.3	0.0	2.2	-1.5
d-c	0.5	0.2	0.9	19.4	2.2	-25.9	0.6	0.3	-2.5
e-d	-0.4	0.0	-1.2	-110.0	-3.1	65.9	-1.2	-3.0	3.1

## Appendix 2 Climate features of September 2015 (Seoul)

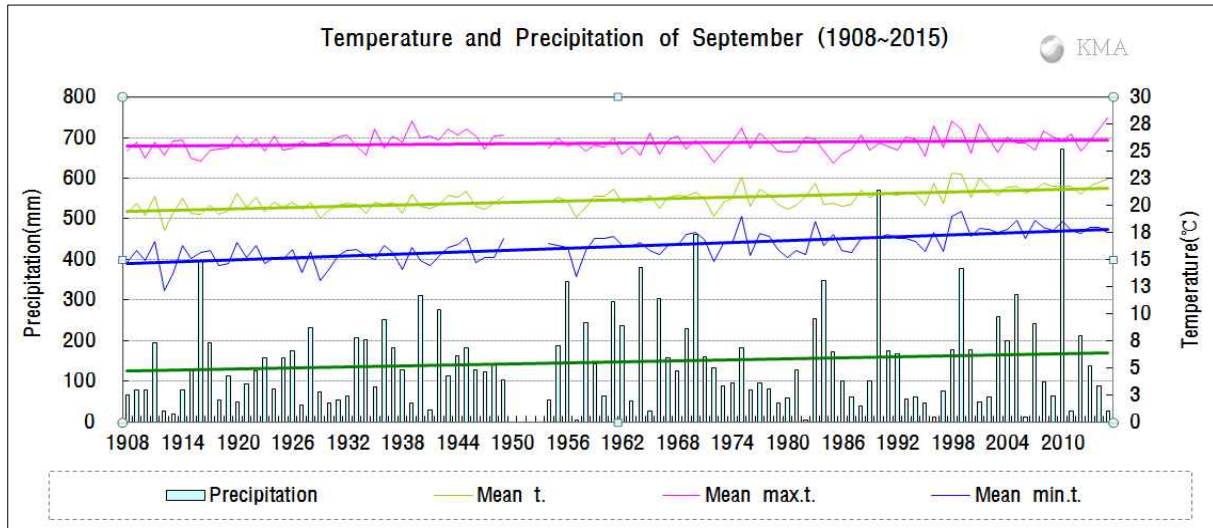


Fig 2. Temperatures (mean, mean maximum and mean minimum) and precipitation in Seoul during September (1908-2015).

### □ The average value of meteorological element during September in Seoul (1908-2015)

Elements (Seoul)	Sep. 2015(a)	Sep. 2014(b)	Normals of Sep. (1981-2010)(c)	a-b	a-c	Rank since 1908 (within 5th)
Mean temperature (°C)	22.4	22.1	21.2	0.3	1.2	the 5th highest
Mean maximum temp. (°C)	28.1	27.0	25.8	1.1	2.3	the highest
Mean minimum temp. (°C)	17.5	18.0	17.2	-0.5	0.3	-
Precipitation (mm)	26.0	88.1	169.3	-62.1 (29.5%)	-143.3 (15.4%)	-
Days of rain (day)	4.0	7.0	9.1	-3.0	-5.1	the 3rd lowest
Sunshine duration (hour)	262.1	214.3	176.2	47.8 (122.3%)	85.9 (148.8%)	the 4th highest
Mean cloud amount (1/10)	3.8	4.9	5.3	-1.1	-1.5	the 2nd lowest
Days of maximum temperature more than 30°C(day)	5.0	3.0	2.5	2.0	2.5	-
Days of daily temperature range greater than 10°C(day)	21.0	12.0	10.2	9.0	10.8	-

### □ The average value of meteorological element during September in Seoul in each decade (1911-2010)

Year	Mean temp. (°C)	Mean max. temp. (°C)	Mean min. temp. (°C)	Prep. (mm)	Days of rain (day)	Sunshine duration (hour)	Mean cloud amount (1/10)	Days of maximum temperature more than 30°C(day)	Days of daily temperature range greater than 10°C(day)
1911-1920(a)	19.7	25.3	15.1	125.6	10.1	211.2	6.0	1.9	16.3
1921-1930	19.9	25.6	14.9	118.1	8.5	217.8	5.4	2.3	18.4
1931-1940(b)	20.1	26.1	15.5	153.3	8.8	220.9	5.7	2.4	19.0
1941-1949	20.3	26.4	15.7	140.2	10.3	207.5	5.8	3.8	18.7
1954-1960	20.2	25.5	16.0	148.7	9.6	183.2	6.0	1.4	14.4
1961-1970	20.7	25.6	16.5	226.6	10.7	172.2	5.8	2.0	12.8
1971-1980(c)	20.5	25.5	16.5	102.0	8.6	174.6	5.5	0.7	12.0
1981-1990	20.6	25.4	16.6	178.0	8.1	192.0	5.6	1.0	11.3
1991-2000	21.3	26.0	17.2	132.9	9.4	187.0	4.9	3.4	11.6
2001-2010(d)	21.7	26.1	17.9	196.9	9.9	149.5	5.4	3.1	7.8
2015(e)	22.4	28.1	17.5	26.0	4.0	262.1	3.8	5.0	21.0
d-a	2.0	0.8	2.8	71.3	-0.2	-61.7	-0.6	1.2	-8.5
d-b	1.6	0.0	2.4	43.6	1.1	-71.4	-0.3	0.7	-11.2
d-c	1.2	0.6	1.4	94.9	1.3	-25.1	-0.1	2.4	-4.2
e-d	0.7	2.0	-0.4	-170.9	-5.9	112.6	-1.6	1.9	13.2