



# MONTHLY CLIMATE REVIEW OVER KOREA (total 7 pages)

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Release	June 19, 2015

## May 2015 and Spring(March–May) 2015 Climate Summary

- ◇ The nationwide mean temperature in May 2015 was 18.6 °C, 1.4 °C above normal and the nationally-averaged precipitation (56.5 mm) was 50.6% of normal.
- ◇ The nationwide mean temperature in Spring 2015 was 12.7 °C, 1.0 °C above normal and the nationally-averaged precipitation (223.1 mm) was 88.9% of normal.
- Climate features and long-term trends in May 2015 and Spring 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 May 2015

- o Korea (as a whole),
  - The mean temperature (18.6 °C), the mean maximum temperature (25.1 °C) and the mean minimum temperature (12.3 °C) were 1.4 °C, 1.8 °C, 0.8 °C above normal, respectively.
  - The nationally-averaged precipitation was 56.5 mm, which was 50.6 % of normal. The number of rainy days was 6.6, which was 2.0 days less than normal.
  - The total number of hours of sunshine was 284.9, which was 128.4 % of normal.
- o Seoul,
  - The mean temperature (18.9 °C), the mean maximum temperature (24.9 °C), the mean minimum temperature (13.6 °C) were 1.1 °C, 1.9 °C, 0.4 °C above normal, respectively.
  - The amount of precipitation was 28.9 mm, which was 27.3 % of normal.
  - The number of rainy days was 6.0, which was 3.0 days less than normal.
  - The total number of hours of sunshine was 290.4, which was 136.3 % of normal.

## □ Long-term<sup>1)</sup> trend in May 2015 climate

### o Korea (as a whole),

- The national mean temperatures in May in the 2000s (2001-2010) was 0.7 °C above that of in the 1970s (1973-1980).
- The nationally-averaged precipitation in May in the 2000s was 9.2 mm more than that of in the 1970s.
- The number of rainy days in May in the 2000s was 0.9 days more than that of in the 1970s.
- The total sunshine hours in May in the 2000s was 34.3 hours less than that of in the 1970s.

### o Seoul,

- The mean temperatures in May in the 2000s (2001-2010) was 1.4 °C above that of in the 1970s (1971-1980).
- The precipitation in May in the 2000s was 10.9 mm more than that of in the 1970s.
- The number of rainy days in May in the 2000s was 0.7 days more than that of in the 1970s.
- The total sunshine hours in May in the 2000s was 33.8 hours less than that of in the 1970s.

## □ The climatic characteristics in Spring 2015

### o Korea (as a whole),

- The mean temperature (12.7 °C), the mean maximum temperature (19.1 °C) and the mean minimum temperature (6.7 °C) were 1.0 °C, 1.2 °C, 0.7 °C above normal, respectively.
- The nationally-averaged precipitation was 223.1 mm, which was 88.9 % of normal. The number of rainy days was 25.9, which was 1.4 days more than normal.
- The total number of hours of sunshine was 737.8, which was 117.2 % of normal.

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

o Seoul,

- The mean temperature (12.8 °C), the mean maximum temperature (18.7 °C) and the mean minimum temperature (7.7 °C) were 0.8 °C, 1.6 °C, 0.2 °C above normal, respectively.
- The amount of precipitation was 119.0 mm, which was 54.7 % of normal.
- The number of rainy days was 21.0, which was 3.3 days less than normal.
- The total number of hours of sunshine was 777.2, which was 128.0 % of normal.

□ Long-term<sup>2)</sup> trend in Spring 2015 climate

o Korea (as a whole),

- The national mean temperatures in Spring in the 2000s (2001-2010) was 0.7 °C above that of in the 1970s (1973-1980).
- The nationally-averaged precipitation in Spring in the 2000s was 35.9 mm less than that of in the 1970s.
- The number of rainy days in Spring in the 2000s was 0.9 days more than that of in the 1970s.
- The total sunshine hours in Spring in the 2000s was 57.1 hours less than that of in the 1970s.

o Seoul,

- The mean temperatures in Spring in the 2000s (2001-2010) was 1.2 °C above that of in the 1970s (1971-1980).
- The precipitation in Spring in the 2000s was 22.5 mm less than that of in the 1970s.
- The number of rainy days in Spring in the 2000s was 2.0 days more than that of in the 1970s.
- The total sunshine hours in Spring in the 2000s was 76.2 hours less than that of in the 1970s.

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2) 2000s : 2001~2010 / 1970s of Korea(Seoul) : 1973~1980(1971~1980)

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

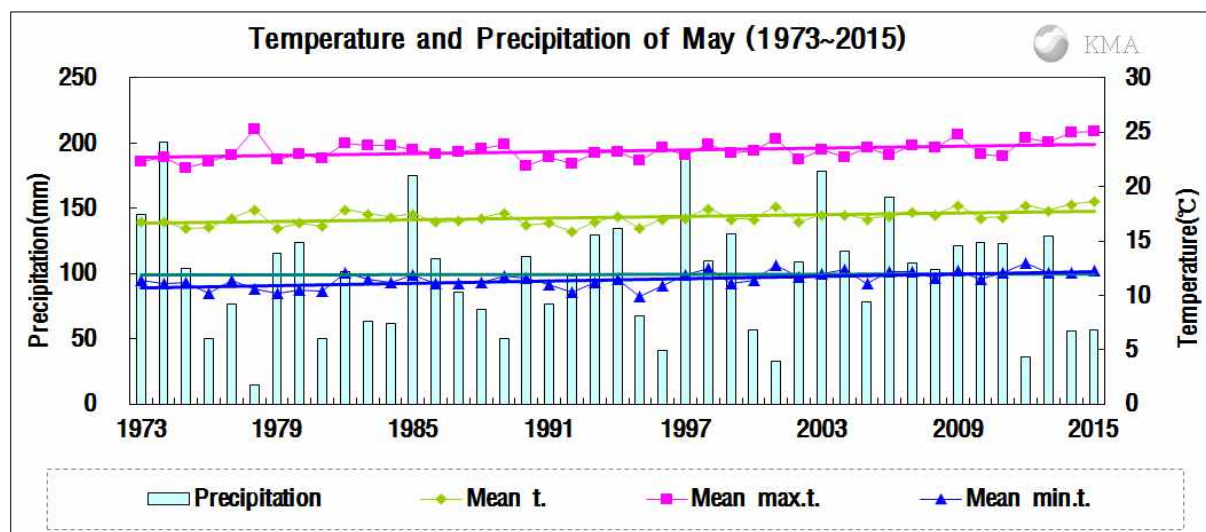


Fig 1. Temperatures (mean, mean maximum and mean minimum) and precipitation in South Korea during May (1973–2015).

### □ The nationwide average value of meteorological element during May(1973-2015)

Elements (whole country)	May 2015(a)	May 2014(b)	Normals of May (1981-2010)(c)	a-b	a-c	Rank since 1973 (within 5th)
Mean temperature (°C)	18.6	18.4	17.2	0.2	1.4	the highest
Mean maximum temp. (°C)	25.1	25.0	23.3	0.1	1.8	the 2nd highest
Mean minimum temp. (°C)	12.3	12.1	11.5	0.2	0.8	the 5th highest
Precipitation (mm)	56.5	56.2	101.7	0.3 (100.9%)	-45.2 (50.6%)	
Days of rain (day)	6.6	7.6	8.6	-1.0	-2.0	minimum days rank 4th
Sunshine duration (hour)	284.9	291.4	221.9	-6.5 (97.8%)	63.0 (128.4%)	the 2nd highest
Mean cloud amount (1/10)	4.3	3.4	5.2	0.9	-0.9	
Days of maximum temperature more than 30°C (day)	3.5	4.0	1.1	-0.5	2.4	maximum days rank 3rd
Asian dust days (day)	0.0	3.6	1.1	-3.6	-1.1	

### □ The nationwide average value of meteorological element during May 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)	Asian dust days (day)
1973-1980(a)	16.8	22.8	10.8	104.0	8.2	243.0	5.0	1.3	0.9
1981-1990(b)	17.2	23.3	11.4	88.5	8.0	232.8	5.4	1.0	1.2
1991-2000(c)	16.9	23.0	11.2	103.4	8.8	224.3	5.0	1.0	1.0
2001-2010(d)	17.5	23.5	12.0	113.2	9.1	208.7	5.1	1.2	1.0
2015(e)	18.6	25.1	12.3	56.5	6.6	284.9	4.3	3.5	0.0
d-a	0.7	0.7	1.2	9.2	0.9	-34.3	0.1	-0.1	0.1
d-b	0.3	0.2	0.6	24.7	1.1	-24.1	-0.3	0.2	-0.2
d-c	0.6	0.5	0.8	9.8	0.3	-15.6	0.1	0.2	0.0
e-d	1.1	1.6	0.3	-56.7	-2.5	76.2	-0.8	2.3	-1.0

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

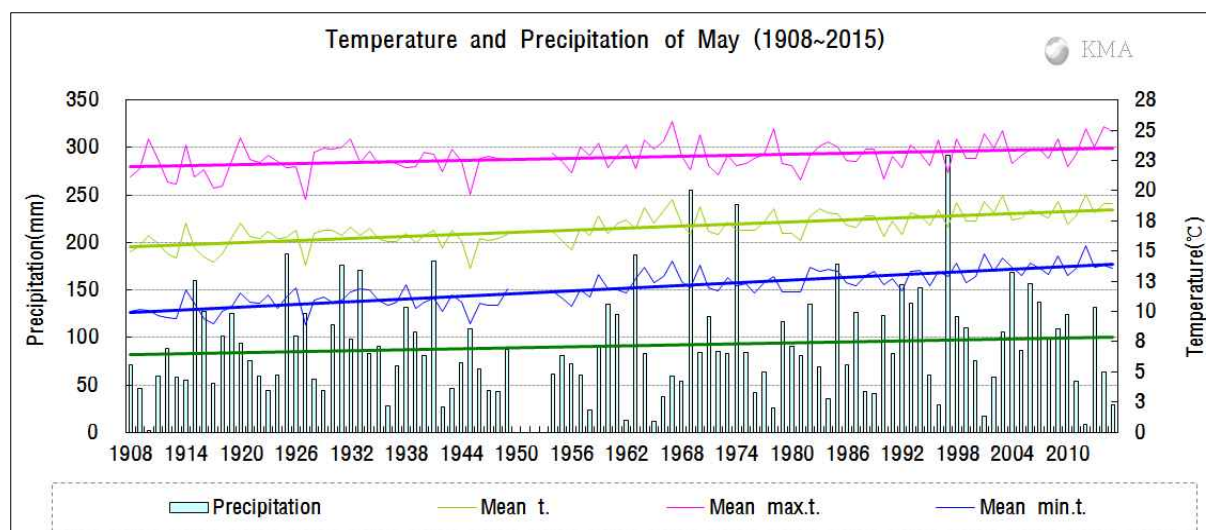


Fig 2. Temperatures (mean, mean maximum and mean minimum) and precipitation in Seoul during May (1908-2015).

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

Elements (Seoul)	May 2015(a)	May 2014(b)	Normals of May (1981-2010)(c)	a-b	a-c	Rank since 1908 (within 5th)
Mean temperature (°C)	18.9	18.9	17.8	0.0	1.1	
Mean maximum temp. (°C)	24.9	25.3	23.0	-0.4	1.9	
Mean minimum temp. (°C)	13.6	13.8	13.2	-0.2	0.4	
Precipitation (mm)	28.9	63.0	105.9	-34.1 (45.9%)	-77.0 (27.3%)	
Days of rain (day)	6.0	9.0	9.0	-3.0	-3.0	
Sunshine duration (hour)	290.4	304.0	213.0	-13.6 (95.5%)	77.4 (136.3%)	
Mean cloud amount (1/10)	4.1	3.2	5.2	0.9	-1.1	
Days of maximum temperature more than 30°C(day)	4.0	3.0	0.5	1.0	3.5	maximum days rank 1st
Asian dust days (day)	0.0	4.0	1.4	-4.0	-1.4	

### □ The average value of meteorological element during May 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)	Asian dust days (day)
1911-1920(a)	15.4	21.8	10.1	92.0	9.4	248.1	5.9	0.2	0.2
1921-1930	16.1	22.4	10.8	86.8	11.0	235.5	6.3	0.1	0.1
1931-1940(b)	16.3	22.8	11.2	103.3	9.7	264.7	5.7	0.7	0.0
1941-1949	15.8	22.3	10.7	75.4	8.6	261.7	6.2	0.3	0.0
1954-1960	16.5	22.8	11.6	75.1	8.4	239.2	5.7	0.1	0.4
1961-1970	17.8	23.5	12.8	90.7	7.3	226.5	5.6	0.6	0.6
1971-1980(c)	16.9	22.6	12.1	95.0	8.1	227.8	4.9	0.5	0.6
1981-1990	17.5	22.8	12.8	90.2	9.3	226.9	5.6	0.1	1.6
1991-2000	17.7	22.9	12.9	121.4	9.0	218.1	5.0	0.7	1.4
2001-2010(d)	18.3	23.4	13.8	105.9	8.8	194.0	4.9	0.7	1.3
2015(e)	18.9	24.9	13.6	28.9	6.0	290.4	4.1	4.0	0.0
d-a	2.9	1.6	3.7	13.9	-0.6	-54.1	-1.0	0.5	1.1
d-b	2.0	0.6	2.6	2.6	-0.9	-70.7	-0.8	0.0	1.3
d-c	1.4	0.8	1.7	10.9	0.7	-33.8	0.0	0.2	0.7
e-d	0.6	1.5	-0.2	-77.0	-2.8	96.4	-0.8	3.3	-1.3

## Appendix 3 Climate features of Spring 2015 (Nationwide)

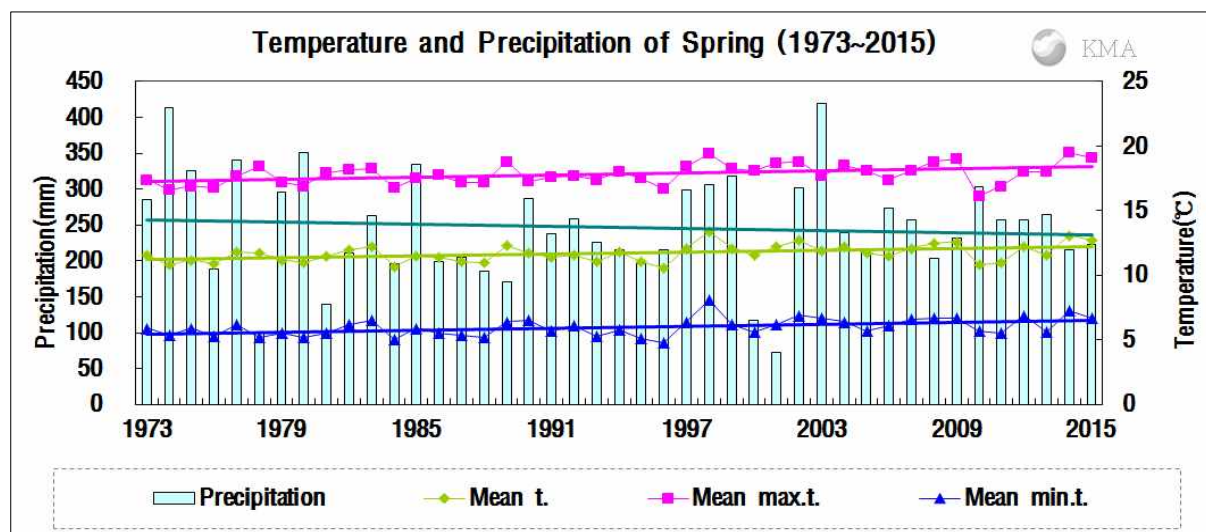


Fig 1. Temperatures (mean, mean maximum and mean minimum) and precipitation in South Korea during Spring (1973–2015).

### □ The nationwide average value of meteorological element during Spring (1973-2015)

Elements (whole country)	Spring 2015(a)	Spring 2014(b)	Normals of Spring (1981-2010)(c)	a-b	a-c	Rank since 1973 (within 5th)
Mean temperature (°C)	12.7	13.1	11.7	-0.4	1.0	the 3rd highest
Mean maximum temp. (°C)	19.1	19.5	17.9	-0.4	1.2	the 3rd highest
Mean minimum temp. (°C)	6.7	7.3	6.0	-0.6	0.7	the 5th highest
Precipitation (mm)	223.1	215.9	236.6	7.2 (102.8%)	-13.5 (88.9%)	
Days of rain (day)	25.9	24.4	24.5	1.5	1.4	
Sunshine duration (hour)	737.8	716.0	629.5	21.8 (103.0%)	108.3 (117.2%)	the 2nd highest
Mean cloud amount (1/10)	4.3	4.1	4.9	0.2	-0.6	the 4th lowest
Days of maximum temperature more than 30°C (day)	3.6	4.0	1.1	-0.4	2.5	maximum days rank 3rd
Asian dust days (day)	6.1	5.2	5.3	0.9	0.8	

### □ The nationwide average value of meteorological element during Spring 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)	Asian dust days (day)
1973-1980(a)	11.3	17.3	5.6	287.5	24.6	659.7	5.0	1.3	3.0
1981-1990(b)	11.5	17.7	5.8	219.2	24.2	655.0	5.1	1.0	3.0
1991-2000(c)	11.7	17.9	5.9	239.0	23.9	631.0	4.8	1.1	5.1
2001-2010(d)	12.0	18.1	6.4	251.6	25.5	602.6	4.8	1.3	7.6
2014(e)	12.7	19.1	6.7	223.1	25.9	737.8	4.3	3.6	6.1
d-a	0.7	0.8	0.8	-35.9	0.9	-57.1	-0.2	0.0	4.6
d-b	0.5	0.4	0.6	32.4	1.3	-52.4	-0.3	0.3	4.6
d-c	0.3	0.2	0.5	12.6	1.6	-28.4	0.0	0.2	2.5
e-d	0.7	1.0	0.3	-28.5	0.4	135.2	-0.5	2.3	-1.5

## Appendix 4 Climate features of Spring 2015 (Seoul)

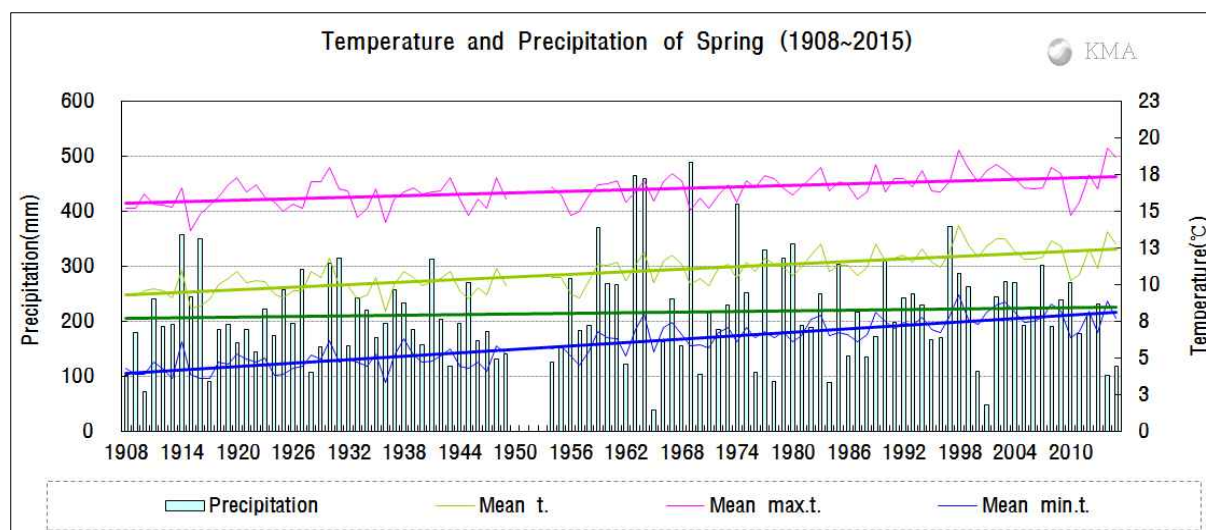


Fig 2. Temperatures (mean, mean maximum and mean minimum) and precipitation in Seoul during Spring (1908–2015).

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

Elements (Seoul)	Spring 2015(a)	Spring 2014(b)	Normals of Spring (1981-2010)(c)	a-b	a-c	Rank since 1908 (within 5th)
Mean temperature (°C)	12.8	13.6	12.0	-0.8	0.8	
Mean maximum temp. (°C)	18.7	19.3	17.1	-0.6	1.6	the 3rd highest
Mean minimum temp. (°C)	7.7	8.9	7.5	-1.2	0.2	
Precipitation (mm)	119.0	101.2	217.5	17.8 (117.6%)	-98.5 (54.7%)	
Days of rain (day)	21.0	20.0	24.3	1.0	-3.3	
Sunshine duration (hour)	777.2	731.9	607.0	45.3 (106.2%)	170.2 (128.0%)	the 5th highest
Mean cloud amount (1/10)	4.0	3.9	4.8	0.1	-0.8	the 2nd lowest
Days of maximum temperature more than 30°C (day)	4.0	3.0	0.5	1.0	3.5	maximum days rank 1st
Asian dust days (day)	10.0	6.0	6.6	4.0	3.4	

### □ The average value of meteorological element during Spring 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)	Asian dust days (day)
1911-1920(a)	9.7	15.7	4.4	220.8	26.7	696.5	5.6	0.2	1.7
1921-1930	10.2	16.2	4.7	203.5	26.1	673.3	5.6	0.1	0.3
1931-1940(b)	9.8	15.8	4.9	213.4	26.0	705.3	5.4	0.7	0.0
1941-1949	10.0	16.1	4.9	190.8	25.1	722.4	5.5	0.3	0.0
1954-1960	10.4	16.0	5.7	223.9	25.9	636.6	5.4	0.1	1.3
1961-1970	11.1	16.5	6.5	250.4	23.2	631.8	5.4	0.6	1.9
1971-1980(c)	11.0	16.5	6.5	247.5	23.5	619.4	5.0	0.5	2.5
1981-1990	11.6	16.9	7.0	199.1	23.8	657.8	5.1	0.1	3.9
1991-2000	12.1	17.3	7.5	228.5	23.6	620.1	4.6	0.7	6.8
2001-2010(d)	12.2	17.1	8.0	225.0	25.5	543.2	4.7	0.7	9.2
2014(e)	12.8	18.7	7.7	119.0	21.0	777.2	4.0	4.0	10.0
d-a	2.5	1.4	3.6	4.2	-1.2	-153.3	-0.9	0.5	7.5
d-b	2.4	1.3	3.1	11.6	-0.5	-162.1	-0.7	0.0	9.2
d-c	1.2	0.6	1.5	-22.5	2.0	-76.2	-0.3	0.2	6.7
e-d	0.6	1.6	-0.3	-106.0	-4.5	234.0	-0.7	3.3	0.8