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Division	Meteorological Resources Division
Contact	LEE Jae-Won
Phone/email	+82-2-2181-0882/ 2seun@korea.kr
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Monthly (May 2013) and Seasonal (Spring : March-May 2013) Climate Summary

◇ The nationwide mean temperature (17.8 ℃) of May 2013 is above normal and the monthly precipitation (129.0 mm) is nearly normal.

◇ The mean temperature (11.6 ℃) and monthly precipitation (264.3 mm) of spring 2013 are nearly normal nationwide.

□ Climate features and long-term trends of May and Spring 2013 have been analyzed with the data collected at the 45 meteorological stations throughout Korea (national average) from 1973 to 2013 (1908-2013 for Seoul).

   ※ Normal : Average value of climatic element data collected from 1981 to 2010

□ **The climatic characteristics of May 2013 are described as follows:**

 o For Korea (whole country),

  - The mean temperature (17.8 ℃), the mean maximum temperature (24.1 ℃) and the mean minimum temperature (12.1 ℃) are 0.6 ℃, 0.8℃ and 0.6 ℃ above normals, respectively.

  - The nationally-averaged precipitation was 129.0 mm, which is 124% of normal and regarded as nearly normal. The number of the days of rain was 7.8, which is 0.8 days less than normal.

  - The total number of the hours of sunshine was 239.8, which is 17.9 hours more than normal and regarded as nearly normal.

  - The number of the Asian dust days was zero, which is 1.0 less than normal.

 o For Seoul,

  - The mean temperature (18.2 ℃), the mean maximum temperature (23.6 ℃) and the mean minimum temperature (13.7 ℃) are 0.4 ℃, 0.6 ℃ and 0.5 ℃ above normals, respectively.

  - The precipitation was 132.0 mm, which is 125% of normal.

  - The number of the days of rain was 10.0, which is 1.0 days more than normal.

  - The total number of the hours of sunshine was 238.1, which is 112% of normal.

  - The number of the Asian dust days was zero, which is 1.4 less than normal.

☐ **The climatic characteristics of spring 2013 are described as follows:**

o For Korea (whole country),

- The mean temperature (11.6 ℃), the mean maximum temperature (18.0 ℃) and the mean minimum temperature (5.6 ℃) are all nearly normal.

- The nationally-averaged precipitation was 264.3 mm, which is 111% of normal. The number of the days of rain was 25.5, which is 1.0 days more than normal.

- The total number of the hours of sunshine was 699.1, which is nearly normal.

- The number of the Asian dust days was 1.4, which is 3.8 days less than normal.

o For Seoul,

- The mean temperature (11.1 ℃), the mean maximum temperature (16.5 ℃) and the mean minimum temperature (6.7 ℃) are 0.9 ℃, 0.6 ℃, 0.8 ℃ below normals, respectively.

- The precipitation was 231.0 mm, which is 106% of normal.

- The number of the days of rain was 33.0, which is 8.7 days more than normal.

- The total number of the hours of sunshine was 707.6, which is 117 % of normal and regarded as nearly normal.

- The number of the Asian dust days was 3.0, which is 3.6 days less than normal.

☐ **Long-term trend of May and spring 2013 climate**

o For Korea (whole country),

- The national mean temperatures of May and spring 2000s (2001-2010) are all 0.7 ℃ above those of the same month and season of 1970s.

- The nationally-averaged precipitation of May 2000s is 9.2 mm more than that of the same month of 1970s, and the precipitation of spring 2000s is 35.9 mm less than that of the same season of 1970s.

- The number of the days of rain of May and spring 2000s are all 0.9 days more than those of the same month and season of 1970s.

- The total sunshine of May and spring 2000s are 34.3 hours and 57.1 hours less than those of the same month and season of 1970s, respectively.

o For Seoul,

- The mean temperatures of May and spring 2000s (2001-2010) are 1.4℃ and 1.2 ℃ above those of the same month and season of 1970s, respectively.

- The precipitation of May 2000s is 10.9 mm more than that of the same month of 1970s, and the precipitation of spring 2000s is 22.5 mm less than that of the same season of 1970s.

- The number of the days of rain of May and spring 2000s are 0.7 days and 2.0 days more than those of the same month and season of 1970s, respectively.

- The total sunshine of May and spring 2000s are 33.8 hours and 76.2 hours less than those of the same month and season of 1970s, respectively.

Climate features of May 2013(Nationwide)
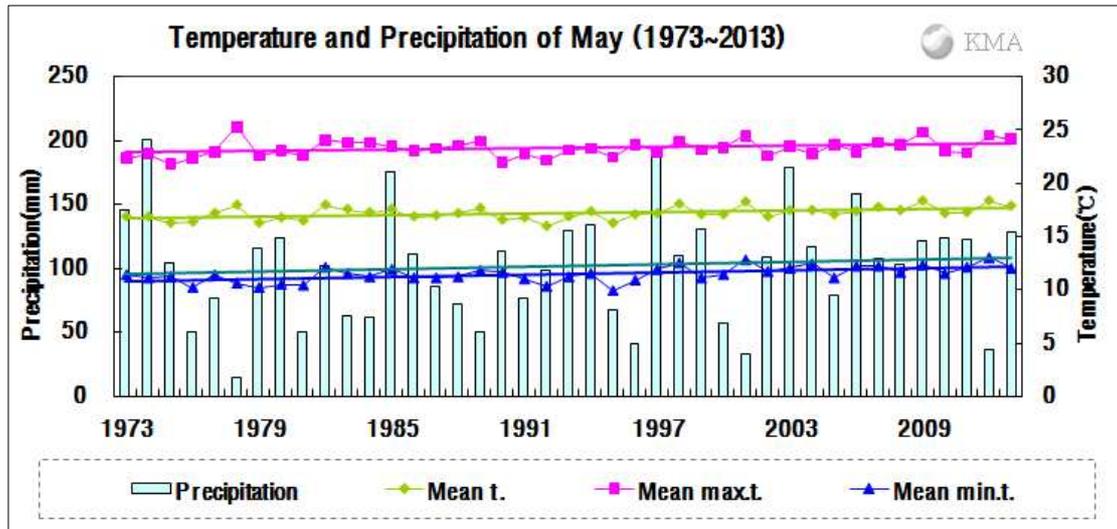

Fig 1. Temperatures (mean, mean maximum, and mean minimum), and precipitation in South Korea during May (1973~2013).

☐ Average values of meteorological elements across Korea during May (1973~2013)

Elements (whole country)	May 2013(a)	May 2012(b)	Normals of May (1981-2010) (c)	a-b	a-c	Ranked in top 5 since 1973
Mean temperature (℃)	17.8	18.3	17.2	-0.5	0.6	
Mean maximum temp. (℃)	24.1	24.5	23.3	-0.4	0.8	fifth warmest
Mean minimum temp. (℃)	12.1	13.0	11.5	-0.9	0.6	
Precipitation (mm)	129.0	36.2	101.7	92.8(446)	27.3(124)	
Rain (day)	7.8	7.3	8.6	0.5	-0.8	
Sunshine (hour)	239.8	232.5	221.9	7.3(103)	17.9(108)	
Mean cloud cover (1/10)	4.7	4.8	5.2	-0.1	-0.5	
Asian dust (day)	0.0	0.0	1.0	0.0	-1.0	

☐ Average values of meteorological elements across Korea during May for each decade (1973~2010)

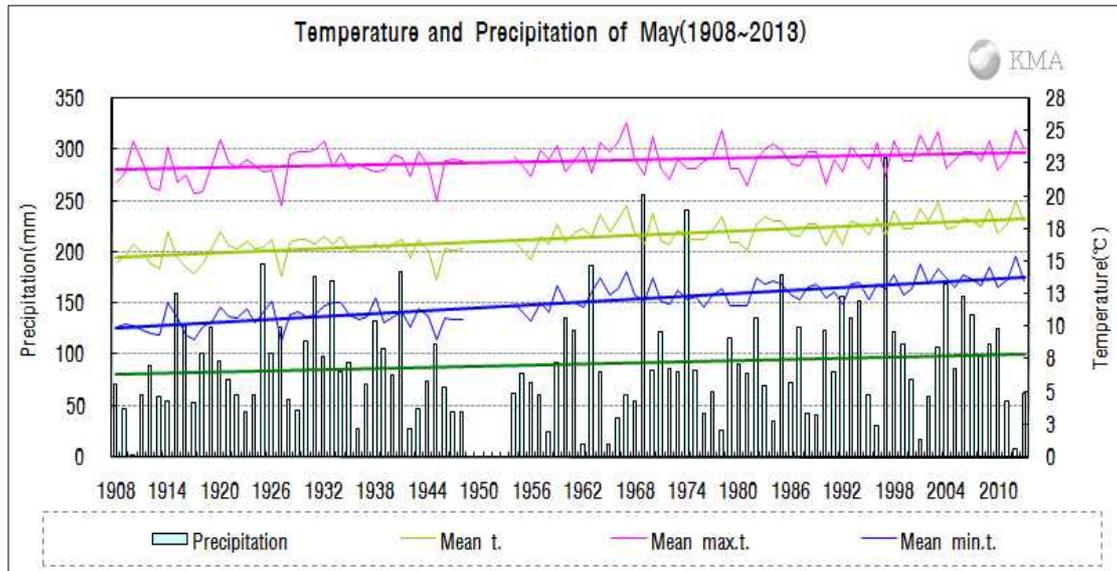| Year	Mean temp. (℃)	Mean max. temp. (℃)	Mean min. temp. (℃)	Precipitation (mm)	Rain (day)	Sunshine (hour)	Mean cloud cover (1/10)	Asian dust (day)
1973-1980(a)	16.8	22.8	10.8	104.0	8.2	243.0	5.0	0.8
1981-1990(b)	17.2	23.3	11.4	88.5	8.0	232.8	5.4	1.2
1991-2000(c)	16.9	23.0	11.2	103.4	8.8	224.3	5.0	1.0
2001-2010(d)	17.5	23.5	12.0	113.2	9.1	208.7	5.1	1.0
2013(e)	17.8	24.1	12.0	129.0	7.8	239.8	4.7	0.0
d-a	0.7	0.7	1.2	9.2	0.9	-34.3	0.1	0.2
d-b	0.3	0.2	0.6	24.7	1.1	-24.1	-0.3	-0.2
d-c	0.6	0.5	0.8	9.8	0.3	-15.6	0.1	0.0
e-d	0.3	0.6	0.0	15.8	-1.3	31.1	-0.4	-1.0

Fig 2. Temperatures (mean, mean maximum, and mean minimum), and precipitation in Seoul during May (1908-2013).

☐ Average values of meteorological elements in Seoul during May (1973~2013)

Elements (Seoul)	May 2013(a)	May 2012(b)	Normals of May (1981-2010)(c)	a-b	a-c	Ranked in top 5 since 1908
Mean temperature (℃)	18.2	19.7	17.8	-1.5	0.4	-
Mean maximum temp. (℃)	23.6	25.1	23.0	-1.5	0.6	-
Mean minimum temp. (℃)	13.7	15.4	13.2	-1.7	0.5	-
Precipitation (mm)	132.0	8.2	105.9	123.8(1610)	26.1(125)	-
Rain (day)	10.0	7.0	9.0	3.0	1.0	-
Sunshine (hour)	238.1	251.3	213.0	-13.2(95)	25.1(112)	-
Mean cloud cover (1/10)	4.7	4.3	5.2	0.4	-0.5	-
Asian dust (day)	0.0	0.0	1.4	0.0	-1.4	-

☐ Average values of meteorological elements in Seoul during May for each decade (1911-2010)

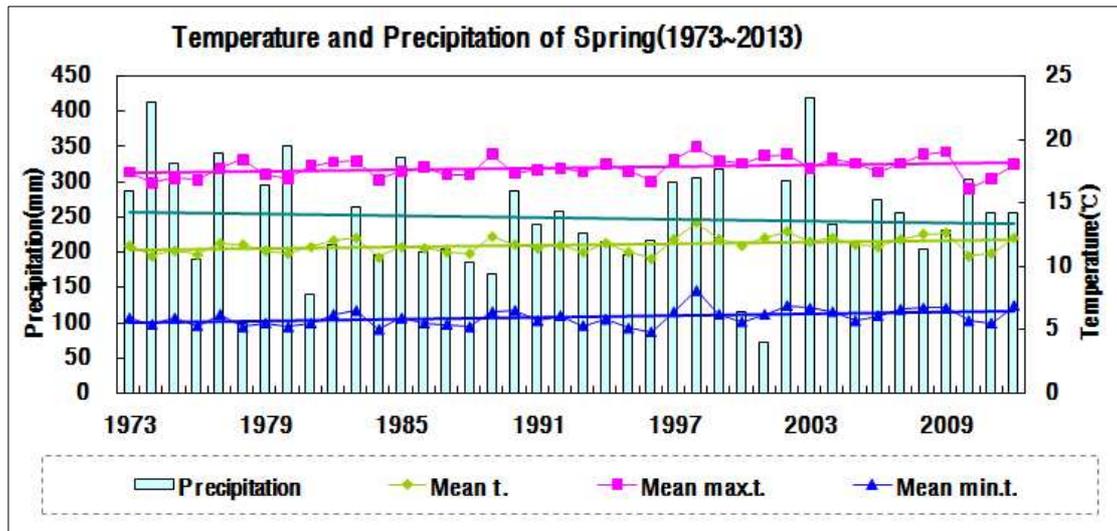| Year	Mean temp. (℃)	Mean max. temp. (℃)	Mean min. temp. (℃)	Precipitation (mm)	Rain (day)	Sunshine (hour)	Mean cloud cover (1/10)	Asian dust (day)
1911-1920(a)	15.4	21.8	10.1	92.0	9.4	248.1	5.9	0.2
1921-1930	16.1	22.4	10.8	86.8	11.0	235.5	6.3	0.1
1931-1940(b)	16.3	22.8	11.2	103.3	9.7	264.7	5.6	
1941-1949	15.8	22.3	10.7	75.4	8.6	261.7	6.2	0.0
1954-1960	16.5	22.8	11.6	75.1	8.4	239.2	5.7	0.4
1961-1970	17.8	23.5	12.8	90.7	7.3	226.5	5.6	0.6
1971-1980(c)	16.9	22.6	12.1	95.0	8.1	227.8	4.9	0.6
1981-1990	17.5	22.8	12.8	90.2	9.3	226.9	5.6	1.6
1991-2000	17.7	22.9	12.9	121.4	9.0	218.1	5.0	1.4
2001-2010(d)	18.3	23.4	13.8	105.9	8.8	194.0	4.9	1.3
2013(e)	18.2	23.6	13.7	132.0	10.0	238.1	4.7	0.0
d-a	2.9	1.6	3.7	13.9	-0.6	-54.1	-1.0	1.1
d-b	2.0	0.6	2.6	2.6	-0.9	-70.7	-0.7	1.3
d-c	1.4	0.8	1.7	10.9	0.7	-33.8	0.0	0.7
e-d	-0.1	0.2	-0.1	26.1	1.2	44.1	-0.2	-1.3

Fig 3. Temperatures (mean, mean maximum, and mean minimum), and precipitation in South Korea during Spring (1973-2013).

□ Average values of meteorological elements across Korea during Spring(1973~2013)

Elements (whole country)	Spring 2013(a)	Spring 2012(b)	Normals of Spring (1981-2010)(c)	a-b	a-c	Ranked in top 5 since 1973
Mean temperature (℃)	11.6	12.2	11.7	-0.6	-0.1	
Mean maximum temp. (℃)	18.0	18.0	17.9	0.0	0.1	
Mean minimum temp. (℃)	5.6	6.9	6.0	-1.3	-0.4	
Precipitation (mm)	264.3	256.5	236.6	7.8(109)	27.7(111)	
Rain (day)	25.5	27.7	24.5	-2.2	1.0	
Sunshine (hour)	699.1	628.1	629.5	71.0(111)	69.6(111)	
Mean cloud cover (1/10)	4.4	4.9	4.9	-0.5	-0.5	
Asian dust (day)	1.4	0.3	5.2	1.1	-3.8	

□ Average values of meteorological elements across Korea during Spring for each decade (1973~2010)

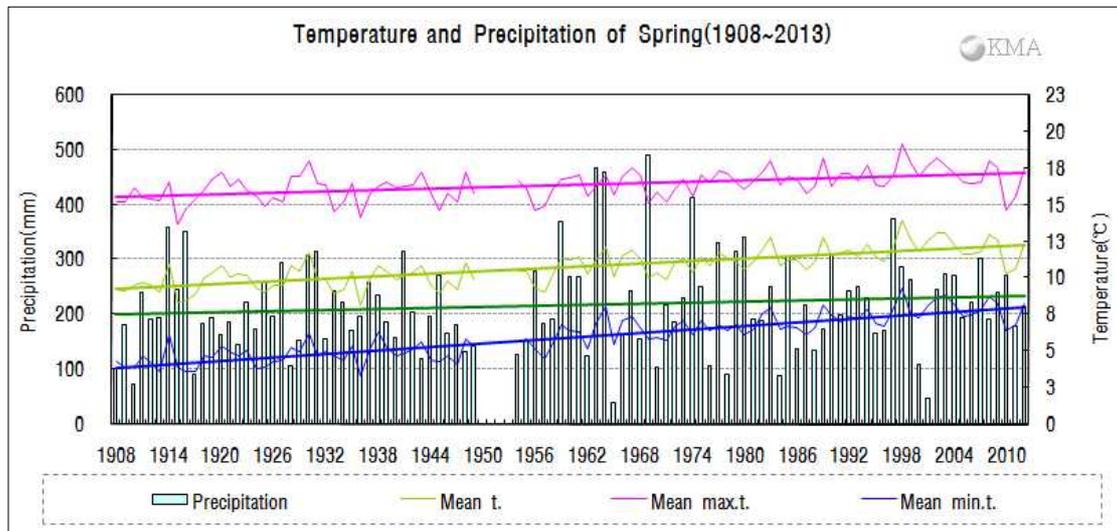| Year	Mean temp. (℃)	Mean max. temp. (℃)	Mean min. temp. (℃)	Precipitation (mm)	Rain (day)	Sunshine (hour)	Mean cloud cover (1/10)	Asian dust (day)
1973-1980(a)	11.3	17.3	5.6	287.5	24.6	659.7	5.0	3.0
1981-1990(b)	11.5	17.7	5.8	219.2	24.2	655.0	5.1	3.1
1991-2000(c)	11.7	17.9	5.9	239.0	23.9	631.0	4.8	5.0
2001-2010(d)	12.0	18.1	6.4	251.6	25.5	602.6	4.8	7.6
2013(e)	11.6	18.0	5.6	264.3	25.5	699.1	4.4	1.4
d-a	0.7	0.8	0.8	-35.9	0.9	-57.1	-0.2	4.6
d-b	0.5	0.4	0.6	32.4	1.3	-52.4	-0.3	4.5
d-c	0.3	0.2	0.5	12.6	1.6	-28.4	0.0	2.6
e-d	-0.4	-0.1	-0.8	12.7	0.0	96.5	-0.4	-6.2

Fig 4. Temperatures (mean, mean maximum, and mean minimum), and precipitation in Seoul during Spring (1908-2013).

□ Average values of meteorological elements in Seoul during Spring (1973~2013)

Elements (Seoul)	Spring 2013(a)	Spring 2012(b)	Normals of Spring (1981-2010)(c)	a-b	a-c	Ranked in top 5 since 1908
Mean temperature (℃)	11.1	12.4	12.0	-1.3	-0.9	
Mean maximum temp. (℃)	16.5	17.5	17.1	-1.0	-0.6	
Mean minimum temp. (℃)	6.7	8.2	7.5	-1.5	-0.8	
Precipitation (mm)	231.0	212.6	217.5	18.4(109)	13.5(106)	
Rain (day)	33.0	23.0	24.3	10.0	8.7	
Sunshine (hour)	707.6	655.6	607.0	52.0(108)	100.6(117)	
Mean cloud cover (1/10)	4.3	4.7	4.8	-0.4	-0.5	
Asian dust (day)	3.0	0.0	6.6	3.0	-3.6	

□ Average values of meteorological elements in Seoul during Spring for each decade (1911-2010)

Year	Mean temp. (℃)	Mean max. temp. (℃)	Mean min. temp. (℃)	Precipitation (mm)	Rain (day)	Sunshine (hour)	Mean cloud cover (1/10)	Asian dust (day)
1911-1920(a)	9.7	15.7	4.4	220.8	26.7	696.5	5.6	1.7
1921-1930	10.2	16.2	4.7	203.5	26.1	673.3	5.6	0.3
1931-1940(b)	9.8	15.8	4.9	213.4	26.0	705.3	5.4	0.0
1941-1949	10.0	16.1	4.9	190.8	25.1	722.4	5.5	0.0
1954-1960	10.4	16.0	5.7	223.9	25.9	636.6	5.4	1.3
1961-1970	11.1	16.5	6.5	250.4	23.2	631.8	5.4	1.9
1971-1980(c)	11.0	16.5	6.5	247.5	23.5	619.4	5.0	2.5
1981-1990	11.6	16.9	7.0	199.1	23.8	657.8	5.1	3.9
1991-2000	12.1	17.3	7.5	228.5	23.6	620.1	4.6	6.8
2001-2010(d)	12.2	17.1	8.0	225.0	25.5	543.2	4.7	9.2
2013(e)	11.1	16.5	6.7	231.0	33.0	707.6	4.3	3.0
d-a	2.5	1.4	3.6	4.2	-1.2	-153.3	-0.9	7.5
d-b	2.4	1.3	3.1	11.6	-0.5	-162.1	-0.7	9.2
d-c	1.2	0.6	1.5	-22.5	2.0	-76.2	-0.3	6.7
e-d	-1.1	-0.6	-1.3	6.0	7.5	164.4	-0.4	-6.2