



Summer 2024 forecast
From March to mid - May 2024 (update 1)
Issued on 22 February 2024

Climate prediction of the summer 2024, during March to mid May 2024

The summer of Thailand this year is begin on 21st February 2024 which is later than around 1 week and will end at about Mid - May. The weather will be commonly sweltering generally with very hot weather in many areas, especially from mid-March to early May. Alternating with several thunderstorms. Mean maximum temperature around the Upper Thailand is about 37.0 °C which 1.0 - 1.5 °C above normal (Normal : 35.4 °C) and more than the last year (the mean maximum temperature during the summer 2023 was 35.8 °C). While mean total rain is to be below normal around 30%.

Furthermore, summer thunderstorms may occur at many areas as thunder rain, gusty wind and perhaps falling hail at some areas possibly causing life, property and crop damages. However, the falling rain amount will not be suitable at many areas for utilization, consumption and agricultural demands, specifically at repeated drought areas outside irrigation zones. As a result, the public should consume water economically with optimized benefits and prepare for summer thunderstorm protection further.

General weather characteristics

For the Upper Thailand, early March, commonly sweltering weather appears during day time with thick fog at many areas. Except at northern and northeastern parts, morning cool weather happens. The reason is that high-pressure areas from China still prevailed over the upper portion of the northern and northeastern parts.

Then during middle March till early may, Few commonly sweltering weather occurs with very hot weather at many areas in some periods. The extreme maximum temperature is to be 43.0-44.5 °C. Also, summer thunderstorms may develop at many areas on some days as thunder rain, gusty wind including with feasibly falling hail. Thus, heat will be remediated together with periodically prevailing heat low-pressure air mass cells and prevailing southerly or southeasterly wind bringing about moisture from the Gulf of Thailand for nearly this whole period.

Afterward in mid - May, variable weather occurs. In other words, commonly sweltering weather with hot to very hot weather happens on some days. Also, thunder rain will appear at many areas because prevailing southerly or southeasterly wind starts to transform into prevailing southwestern monsoon instead.

For the Southern Thailand, during March to the end of April, 20 - 30% rainfall area with hot weather occurs at many areas during some periods whereas wind waves in the Gulf of Thailand and the Andaman Sea are to be about 1 meter. The reason is that the prevailing easterly or southeasterly wind over the Gulf of Thailand and the Southern Thailand transforms into southwestern monsoon prevailing over the Andaman Sea and the Southern Thailand instead.

Then until middle May, Southern Thailand will meet more rain continuously. Especially around the west coast, 60-80% rainfall area appears with heavy to very heavy rain at some areas. Moreover, wind waves in the Andaman Sea will become more active as 2-3 meters high at some periods while those in the Gulf of Thailand are to be 1 meter high. The reason is that the prevailing easterly or southeasterly wind over the Gulf of Thailand and the Southern Thailand transforms into southwestern monsoon prevailing over the Andaman Sea and the Southern Thailand instead.

+++ Cautions +++

Fire and forest fire: During this summer, the sweltering weather will influence to bring about fire and forest fire easily. Then, the public should be cautious in using fuel for their activities.

The weather is very hot: During mid-March to early May, there will be very hot weather continuously for a long time. May cause dangers and diseases caused by hot weather. Especially at-risk and vulnerable groups such as patients, the elderly and children. Therefore, people should avoid places with extremely hot weather for long periods of time. And always check and take care of family members to prepare their bodies to face the hot weather.

Table A: showing details of the weather prediction with extreme maximum temperature for each part.

Part	The weather prediction	The extreme maximum temperature
Northern and northeastern	Commonly sweltering generally with very hot weather in many areas during some periods. Thunder rain at many areas on some days. In addition, gusty wind with falling hail happens at some areas helping remediate some heat.	43.0 – 44.5 °C around Chiang Rai, Mae Hong Son, Chiang Mai, Phayao, Lamphun, Lampang, Phrae, Tak, Uttaradit, Sukhothai, Phitsanulok, Kampaengphet, Phetchabun, Phichit, Loei, Nong Bua Lumphu, Nong Khai, Udon Thani, Sakhon Nakhon, Nakhon Phanom, Chaiyaphum, Khon Kaen, Maha Sarakham, Karasin, Mukdahan, Roi Et, Yasothon, Amnat Charoen, Nakhon Ratchasima, Buriram, Surin, Si saket and Ubon Ratchathani provinces.
Central and Eastern including with their coastal areas.	Commonly sweltering generally with very hot weather in many areas during some periods, especially the upper portion. Along with thunder rain at many areas on some days and possibly gusty wind and falling hail at some areas helping remediating some heat.	42.0 – 44.0 °C around Nakhon Sawan, Uthai Thani, Chainat, Sing Buri, Ang Thong, Phra Nakhon Si Ayudthaya, Suphan Buri, Lop Buri, Saraburi, Kanchanaburi, Nonthaburi, Nakhon Pathom, Pathum Thani, Bangkok, Chachoengsao Nakhon Nayok, Prachin Buri and Sa Kaew provinces.
Southern Thailand	Hot weather at many areas during some periods with 20 – 30 % rainfall area. Wind waves in the Gulf of Thailand and the Andaman Sea are to be 1 meter high. And from late April onward, rain amount will increase, specifically at the west coast with heavy to very heavy rain at some areas. Also, wind waves in the Andaman Sea will be more active with 2-3 meters high at some periods.	40.0 – 41.0 °C around Prachuap Khiri Khan, Surat Thani, Nakhon Si Thammarat, Songkhla, Yala, Phuket, Krabi, Trang and Satun rovinces.
Bangkok Metropolitan and Vicinity	Commonly sweltering generally with very hot weather in some areas. Together with rainfall on some days, thus helping remediate some heat.	40.0 – 41.0 °C.

Remarks:

- Daily rainfall area (% of the area) criteria:

Isolated:	> 0 until < 20%	Scattered:	>= 40 until < 60%
Widely scattered:	>=20 until < 40%	Widespread:	>= 80%
Almost widespread:	>=60 until < 80%		
- Daily rainfall amount (millimeters) criteria: From 07.00 – 07.00 AM (UTC 00+7)

Light:	> 0 until 10.0		
Moderate:	>=10.1 until <=35.0	Heavy:	>=35.1 until <90
Very heavy:	>= 90.1		
- Daily minimum temperature criteria for the winter season:

Cool weather	=	18.0 - 22.9	°C.
Moderately cold weather	=	16.0 – 17.9	°C.
Cold weather	=	8.0 - 15.9	° C.
Very cold weather	=	<= 7.9	° C.
- Daily maximum temperature criteria for the summer season:

Hot weather	=	35.0 – 39.9	° C.
Very hot weather	=	>= 40.0	° C.
- Normal means average during the 30-year period (A.D. 1991 – 2020 or B.E. 2534 – 2563)
- These long-range forecasts are utilized by applying some climatic models and statistical methods, the public then should follow the daily weather news from the Thai Meteorological Department further.
- The next summer 2023 forecast will be update about last week of February 2024.
- Further enquiry of monthly climate, 3-month climate and seasonal forecasts can be preceded at Tel: 02-398-9929 or Fax: 02-383-8827.
- Please follow monthly climate, 3-month climate and seasonal forecasts at www.tmd.go.th/en/ at the climate tab.

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Table B: Mean maximum temperature ($^{\circ}\text{C}$) prediction of Thailand during the 2024 summer with Normal.

Part	March		April		The 1 st half of May	
	Mean Maximum Temp.	Normal	Mean Maximum Temp.	Normal	Mean Maximum Temp.	Normal
Northern	36-38	36.1	38-40	37.2	36-38	35.4
Northeastern	35-37	35.2	37-39	36.2	35-37	34.9
Central	36-38	36.5	38-40	37.5	36-38	35.8
Eastern	34-36	33.9	35-37	34.7	34-36	34.1
Southern Thailand (East Coast)	33-35	32.8	34-36	33.9	34-36	33.6
Southern Thailand (West Coast)	34-36	34.3	35-37	34.2	33-35	33.0
Bangkok Metropolis and Vicinity	35-37	34.6	36-38	35.6	35-37	34.8

Table C: Rain amount (millimeters) prediction of Thailand during the 2024 summer with Normal.

Part	March		April		The 1 st half of May	
	Rain amount	Normal	Rain amount	Normal	Rain amount	Normal
Northern	15-30	32.4	40-60	70.5	50-80	80.2
Northeastern	20-40	45.7	50-80	85.7	60-90	83.6
Central	15-30	37.5	40-60	71.6	60-90	83.5
Eastern	30-50	66.5	60-90	102.0	70-100	98.6
Southern Thailand (East Coast)	40-60	89.8	50-80	85.9	50-80	71.7
Southern Thailand (West Coast)	50-80	103.6	90-120	162.2	110-150	147.0
Bangkok Metropolis and Vicinity	20-40	48.6	50-80	95.0	90-120	116.4

Table D: Extreme maximum temperature (Ext. = °C) statistic for the past February – May of last year (2023)

Part	February 2023			March 2023			April 2023			May 2023		
	Ext.	Date	At	Ext.	Date	At	Ext.	Date	At	Ext.	Date	At
Northern	38.1	14	Mueang district, Tak province.	41.5	23,24	Mueang district, Phetchabun province.	44.6	15	Mueang district, Tak province.	43.5	6	Si Samrong District, Sukhothai Province.
Northeastern	38.6	11	Mueang district, Mukdahan province.	41.3	25	Mueang district, Nong Khai province.	43.2	15	Mueang district, Udon Thani province.	44.1	7	Mueang district, Udon Thani province.
					25	Mueang district, Mukdahan province						
Central	38.3	13	Chai Badan district, Lopburi province.	41.5	27	Chai Badan district, Lopburi province.	42.2	25	Mueang district, Nakhon Sawan province.	42.2	7	Mueang district, Uthai Thani province.
Eastern	37.5	24	Mueang district Chon Buri province.	39.8	24,25	Aranya Prathet district, Sa Kaew province.	40.4	6	Kabinburi District, Prachin Buri province.	40.6	7	Mueang district Sa Kaew province.
Southern Thailand (east coast)	35.7	12	Nong Phlub Aggromet. Hua Hin district, Prachuab Khirikhan province.	38.2	26	Nong Phlub Aggromet. Hua Hin district, Prachuab Khirikhan province.	39.8	21	Phunphin District, Surat Thani Province	40.4	6	Nong Phlub Aggromet. Hua Hin district, Prachuab Khirikhan province.

Table D: Extreme maximum temperature (Ext. = °C) statistic for the past February – May of last year (2023)
(Continued)

Part	February 2023			March 2023			April 2023			May 2023		
	Ext.	Date	At	Ext.	Date	At	Ext.	Date	At	Ext.	Date	At
Southern Thailand (west coast)	37.0	14	Mueang district, Phuket province.	39.6	31	Nuea Khlong District, Krabi Province	38.8	11	Nuea Khlong District, Krabi Province	38.0	4	Mueang district, Phuket province.
The whole of Thailand	38.6	11	Mueang district, Mukdahan province.,	41.5	23,24	Mueang district, Phetchabun province.	44.6	15	Mueang district, Tak province.	44.1	7	Mueang district, Udon Thani province
					27	Chai Badan district, Lopburi province.						
Bangkok Metropolis and Vicinity	36.5	2	Queen Sirikhit National Convention Center, Klong Toei district.	37.1	2	Queen Sirikhit National Convention Center, Klong Toei district.	40.0	20	Queen Sirikhit National Convention Center, Klong Toei district.	41.0	7	Queen Sirikhit National Convention Center, Klong Toei district.

Map A shows provinces of possibly very hot weather during some periods from Middle March – early May 2024.

