

Crop Weather Calendar of Rabi Chili: Rongpur Region (Districts: Rongpur, Lalmonirhat, Nilphamari, Kurigram, Gaibandha) Bangladesh

Rongpur Region	Rabi Chili								Life span: 150-160 days												
Months	December				January				February				March				April				
Std.Week/Normal	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Rainfall (mm)	0.0	2.5	0.0	2.5	1.0	2.5	2.0	1.0	1.0	1.5	3.5	1.5	2.5	1.0	2.5	5.5	18.5	11.0	19.5	28.5	31.5
Max. Temp. (°C)	26.7	25.1	24.7	24.1	22.7	22.4	23.2	23.4	24.7	25.9	26.7	27.5	28.5	29.9	30.8	31.6	31.4	32.1	32.5	32.3	32.0
Min. Temp. (°C)	14.2	13.5	12.5	11.5	10.9	10.4	10.8	10.8	11.8	12.7	13.7	14.4	15.3	16.1	17.3	18.4	19.5	20.3	21.1	21.9	21.9
Mean Temp. (°C)	20.4	19.3	18.6	17.8	16.8	16.4	17.0	17.0	18.3	19.3	20.2	21.0	21.9	23.0	24.0	25.0	25.4	26.2	26.8	27.1	27.0
RHmax (%)	95.0	95.4	95.8	96.1	96.0	96.0	95.8	95.7	95.5	94.3	93.7	92.9	91.4	89.8	88.7	88.1	87.7	88.5	88.4	89.9	90.9
RHMin (%)	53.5	56.2	56.2	55.2	58.5	57.8	56.2	54.2	51.6	48.0	47.1	45.3	42.8	39.6	40.8	42.5	48.8	49.7	50.7	56.7	59.0
RHmean (%)	74.2	75.8	76.0	75.6	77.3	76.9	76.0	74.9	73.5	71.2	70.4	69.1	67.1	64.7	64.7	65.3	68.3	69.1	69.5	73.3	75.0
SShr (hrs)	49.5	41.5	42.5	40.0	36.0	36.5	39.5	41.0	44.0	48.5	50.0	51.5	56.5	57.5	57.0	54.0	49.0	51.5	51.0	47.5	47.0
WD (deg)	129	158	160	187	199	214	199	210	208	192	201	201	201	207	196	179	152	148	141	135	118
WS(Km/hr)	6.0	5.7	5.6	5.6	5.7	5.7	5.7	5.6	6.2	6.6	7.5	7.2	7.7	7.8	8.2	8.7	8.7	8.3	8.4	8.3	8.6
																					
Stage	Spouting & Seedling				vegetative growth				Flowering & fruiting				Harvesting								
Favorable Environment																					
Temperature	The ideal average monthly temperatures range between 21°C and 30 °C, with an average of 18 °C; Germination and growth decreases at lower temperature (10°C); Fruit set is adversely affected at temperatures above 35 °C as well as wilting of young parts, and slow growth occurred, especially with low air humidity or dry winds.																				
Relative Humidity	Sensitive to excess moisture and the high relative humidity;The optimum relative humidity varies from 50% to 70%.																				
Soil Temperature	Chili seeds can germinate and grow normally at soil temperatures of 15°C to 25°C, with the optimum around 20°C. Chili can tolerate moderately cold soil temperatures of 13°C to 15°C.																				
Sunshine Hour	At least 4 to 6 hours direct sunlight per day																				
Favorable environmental conditions for insects and diseases																					
Mites	Maximum temp.: 33 to 35°C; Raise a generation in 1 week under optimal conditions (25°C and high relative humidity); Minimum Temp.: 12 to 14°C;The prevailing high temperature and low relative humidity in absence of rainfall favored the population development of mites to reach the peak abundance.																				
Aphids	Moderate to high temperature and relative humidity favors population buildup of aphids																				
Thrips	Grow minimum temperature 9.7°C and maximum temperatures, 33.0°C; Population remains more abundant during prolonged dry conditions than in moist rainy periods; Heavy rainfall reduces population																				
White fly	Population increases at high temperatures; white fly population is low at humidity ≤45% and ≥85% and abundant at 70–85% RH																				
Fruit Borer	The upper development threshold temperature for all stages is 37 °C, and 40 °C is lethal; The optimum temperatures for the development of eggs, larvae, and pupae are around 24–27 °C; RH: 85% to ≤35%.																				
Leaf curl	Vector (White fly) population and virus transmission increased at 35 °C (max. temp.); Disease development correlated with relative humidity as the humidity decreased the disease incident decreased; Disease development favored by certain rainfall																				
Die back/Anthracnose	Max. Temp.: 28 °C to 32°C for disease development; Mini. Temp.: 22°C to 25°C for disease development; Initial infection required 95% or above relative humidity for 24 hrs; Frequent rainy and warm weather alone with prolonged leaf wetness favored disease development.																				
Weather Warning																					
Rainfall	Early rainfall (10 to 15 mm per day)																				
Cloudy weather	Cloudy weather																				

Drought		Short to moderate drought (7 to 10 days)
Duration of staying wet		2 to 3 days
Hailstorm		Hailstorms with early rainfall
Windspeed		≤20 Km/hr
Temperature		Germination and growth decreases at lower temperature (10°C), Fruit set is adversely affected at temperatures above 35 °C

Crop Weather Calendar of Kharif Chili:Rongpur Region (Districts: Rongpur, Lalmonirhat, Nilphamari, Kurigram, Gaibandha)Bangladesh

Rongpur Region	Kharif Chili																			Life span: 150-160 days			
Months	April				May					June					July				August				
Std.Week/Normal	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	16	17	18	19	20	
Rainfall (mm)	11.0	19.5	28.5	31.5	50.0	40.0	65.0	61.5	87.0	106.5	90.5	109.5	91.0	106.0	116.0	83.0	92.0	28.5	31.5	50.0	40.0	65.0	
Max. Temp. (°C)	32.1	32.5	32.3	32.0	31.9	32.5	32.7	32.2	32.8	32.7	32.4	32.0	32.2	32.3	31.9	32.2	32.4	32.3	32.0	31.9	32.5	32.7	
Min. Temp. (°C)	20.3	21.1	21.9	21.9	22.3	23.2	23.4	23.9	24.4	25.0	25.2	25.8	26.0	26.0	26.0	26.1	21.9	21.9	22.3	23.2	23.4		
Mean Temp. (°C)	26.2	26.8	27.1	27.0	27.1	27.8	28.1	28.0	28.6	28.8	28.8	28.9	29.1	29.2	29.0	29.1	29.2	27.1	27.0	27.1	27.8	28.1	
RHmax (%)	88.5	88.4	89.9	90.9	92.5	92.2	92.9	92.8	93.3	93.9	94.2	94.9	94.7	95.0	94.8	94.5	94.5	89.9	90.9	92.5	92.2	92.9	
RHMin (%)	49.7	50.7	56.7	59.0	62.0	62.0	62.9	65.8	66.7	69.0	70.7	73.7	73.6	73.8	74.6	73.3	71.9	56.7	59.0	62.0	62.0	62.9	
RHmean (%)	69.1	69.5	73.3	75.0	77.3	77.1	77.9	79.3	80.0	81.4	82.4	84.3	84.1	84.4	84.7	83.9	83.2	73.3	75.0	77.3	77.1	77.9	
SShr (hrs)	51.5	51.0	47.5	47.0	46.5	47.5	49.0	41.0	40.5	38.0	31.5	27.0	28.0	27.0	30.5	30.0	34.0	47.5	47.0	46.5	47.5	49.0	
WD (deg)	148	141	135	118	115	120	118	119	123	125	125	127	131	143	137	138	138	135	118	115	120	118	
WS(Km/hr)	8.3	8.4	8.3	8.6	7.8	7.7	7.9	6.8	7.4	6.9	7.4	7.1	7.1	6.8	6.8	7.8	6.8	8.3	8.6	7.8	7.7	7.9	
																							
Stage	Spouting & Seedling				vegetative growth					Flowering & fruiting					Harvesting								
Favorable Environment																							
Temperature	The ideal average monthly temperatures range between 21°C and 30 °C, with an average of 18 °C; Germination and growth decreases at lower temperature (10°C); Fruit set is adversely affected at temperatures above 35 °C as well as wilting of young parts, and slow growth occurred, especially with low air humidity or dry winds.																						
Relative Humidity	Sensitive to excess moisture and the high relative humidity;The optimum relative humidity varies from 50% to 70%.																						
Soil Temperature	Chili seeds can germinate and grow normally at soil temperatures of 15°C to 25°C, with the optimum around 20°C. Chili can tolerate moderately cold soil temperatures of 13°C to 15°C.																						
Sunshine Hour	At least 4 to 6 hours direct sunlight per day																						
Favorable environmental conditions for insects and diseases																							
Mites	Maximum temp.: 33 to 35°C; Raise a generation in 1 week under optimal conditions (25°C and high relative humidity); Minimum Temp.: 12 to 14°C;The prevailing high temperature and low relative humidity in absence of rainfall favored the population development of mites to reach the peak abundance.																						
Aphids	Moderate to high temperature and relative humidity favors population buildup of aphids																						
Thrips	Grow minimum temperature 9.7°C and maximum temperatures, 33.0°C; Population remains more abundant during prolonged dry conditions than in moist rainy periods; Heavy rainfall reduces population																						
White fly	Population increases at high temperatures; white fly population is low at humidity ≤45% and ≥85% and abundant at 70–85% RH																						
Fruit Borer	The upper development threshold temperature for all stages is 37 °C, and 40 °C is lethal; The optimum temperatures for the development of eggs, larvae, and pupae are around 24–27 °C; RH: 85% to ≤35%.																						
Leaf curl	Vector (White fly) population and virus transmission increased at 35 °C (max. temp.); Disease development correlated with relative humidity as the humidity decreased the disease incident decreased; Disease development favored by certain rainfall																						
Die back/Anthracnose	Max. Temp.: 28 °C to 32°C for disease development; Mini. Temp.: 22°C to 25°C for disease development; Initial infection required 95% or above relative humidity for 24 hrs; Frequent rainy and warm weather alone with prolonged leaf wetness favored disease development.																						
Weather Warning																							
Rainfall	Early rainfall (10 to 15 mm per day)																						
Cloudy weather	Cloudy weather																						
Drought	Short to moderate drought (7 to 10 days)																						
Duration of staying wet	2 to 3 days																						

Hailstorm			Hailstorms with early rainfall
Windspeed	≤20 Km/hr		
Temperature	Germination and growth decreases at lower temperature (10°C),Fruit set is adversely affected at temperatures above 35 °C		