

**CROP WEATHER CALENDARS  
FOR  
KERALA**

**PUBLISHED BY  
DIRECTOR GENERAL OF METEOROLOGY  
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LODI ROAD, NEW DELHI – 110 003  
2000**

## PREFACE

Information on normal weather conditions, water requirements of crop and other agro-meteorological parameters are of vital importance for effective crop planning. More than two decades back the above information was prepared in a pictorial form, called "Crop Weather Calendars" for major cereals, pulses and oil seed crops in the country on a districtwise basis.

With the recent introduction of new strains by the plant breeders and bio-technologists and the changing scenario in agriculture, the earlier crop weather calendars have lost much of their relevance. The revision of these calendars has, thus, become necessary in the light of the recent development in the field of agricultural sciences including agricultural meteorology. This is the third publication in the new series with the calendars for Kerala for Paddy, Coconut, Banana, Pulses, Coffee, Pepper, Tapioca crops.

It is hoped that the information contained in the calendars would prove useful to the agricultural planners, administrators, plant breeders and farmers for plant breeding, crop adoption, drought proofing, supplementary irrigation and maximizing the yield.

The preparation of the calendars has been possible due to exhaustive material provided by Department of Agriculture, Govt. of Kerala and Kerala Agricultural University. We thank them for their co-operation. These calendars were prepared by the Division of Agricultural Meteorology, Meteorological office, Pune and printed in the Rotaprint Unit of the office of the Additional Director General of Meteorology (Research), Pune. I have great pleasure in acknowledging the work done by Dr. U. S. De, DDGM; Dr. H. P. Das, Director; Dr. R. P. Samui, Director; Shri M. V. Satoskar, Shri S. B. Gaonkar, Assistant Meteorologists and Shri R. B. Pataskar in preparing these calendars.

N. SENROY

**PUNE - 411 005**  
**Dated 16 October, 1996.**

**Director General Of Meteorology**

## **INTRODUCTION**

### **1. General**

The Kerala state lies in extreme southwest of Indian sub-continent, bordered by Karnataka state in the north, Tamil Nadu in the east and the Arabian Sea in the west. The area of the state is 38864 sq. km. which is about 1.03 per cent of the total area of the country. On the basis of physical features, the state divides itself into three natural divisions namely;

- i) Low land consisting of the sea board
- ii)The mid land consisting of the undulating country east of the Low Land and
- iii)The forest clad high land on the extreme east.

These three regions run nearly parallel to each other from one end to other. The state is drained by many streams and rivers. Out of 44 rivers in the state, 41 are west flowing. The east flowing rivers are the tributaries of the Cauvery.

### **2. Climate**

The climate over the state is of tropical monsoon type with seasonally excessive rainfall and hot summer except over the extreme southern district. The annual precipitation is around 3000 mm distributed in two spells viz. the Southwest Monsoon and Northeast Monsoon. The southwest monsoon sets in by the middle of May and continues upto the end of August and northeast monsoon commences towards the end of September and continues upto November. The mean annual temperature of the state is 27°C. Heavy rainfall coupled with tropical climate is responsible for high humidity through out the year. The average annual humidity is 70 per cent.

### **3. Soils**

The laterite soil constitute about 58 percent of the total land area of the state, runs along the west from northwest to southwest and forest soils about 25 per cent of total land area of the state. In the coastal tracts along the west, coastal alluvium soils have developed from recent marine deposits. Reverin alluvium soils occur mostly along the banks of rivers and their tributaries. The Onattukara region comprising of Karungappally, Karthikappally and Mavelikkara taluks of Quilon and Alleppey districts are covered with sandy soils. Hydromorphic soils as a group occur extensively in the state. Saline soils (Rice belt) are found near coastal tracts of the state covering 875 sq. km. which is an unique agricultural area in the world. Black soils occur in the patches in Palghat district. In the parts of Thiruvananthapuram and Neyyattinkara taluks, there are some areas covered with red loam soils.

#### **4. Temperature**

In the Kerala state mean annual temperature is about  $27^{\circ}\text{C}$ . During the hottest parts of the year i.e. March to May the mean maximum temperature varies between  $27^{\circ}\text{C}$  to  $37^{\circ}\text{C}$  and minimum temperature between  $19^{\circ}\text{C}$  to  $20^{\circ}\text{C}$ . During the monsoon months temperature drops down by  $3^{\circ}\text{C}$  to  $5^{\circ}\text{C}$  over the plains.

Maximum temperature rises gradually from July onwards till March . Night temperature starts rising gradually from January onwards till May and it has secondary minimum in July when state receives plenty of rain. From May onwards both maximum and minimum temperature starts falling.

#### **5. Land Use**

In Kerala a quarter of total area is under the forest. Net sown area is about 50 per cent to 60 per cent of the total area in Kerala. Area sown more than once as per cent of net sown area is 30 per cent to 40 per cent in Kerala.

Land use capability classification is yet to be completed after which only the cropping system can be suitably modified.

#### **6. Rainfall**

The total annual rainfall in the state varies from 380 cm over the extreme northern parts to about 180 cm in southern parts. The state receives rains from both Southwest Monsoon (from June to mid October) and Northeast Monsoon (from mid October to February). The southwest monsoon is principal rainy season when the state receives about 73 per cent of annual rainfall.

Kozhikode district receives maximum amount of rainfall and southern most district of Thiruvananthapuram receives minimum amount of rainfall.

June and July are the雨iest months each accounting individually to about 23 per cent of annual rainfall.

#### **7. Potential evapotranspiration**

The annual value of PE range between 140 cm to 150 cm along the coast and 160 cm to 170 cm in interior, but rainfall is very much higher in the area.

#### **8. Cropping Pattern**

The cropping pattern is dominated by paddy, plantation and tapioca in Kerala. Plantation (excluding coconut) are found in more elevated areas

and paddy in low lying areas. Coconut plantations are developed on large scale covering 20 to 25 per cent of cropped area.

Since the density of population is very high, the area under the cultivation is proportionately high compared to geographical area of the state. A wide variety of crops like tea, coffee, and cardamom preferring cool, humid climate are the main crops in the high ranges. Rubber, coconut and tapioca are grown in low elevations under humid tropical conditions. The crops like rice, banana, pepper, ginger, tapioca and rubber are grown in mid land.

The cropping system can be grouped into three major groups i.e. 1) Coconut based farming system 2) Rice based farming system and 3) Homestead farming system.

The state holds monopoly with regards to rubber and pepper. Rice is the most important crop to the state accounting for nearly 30 per cent of gross cropped area followed by coconut 25 per cent and tapioca 10 per cent.

### Illustration

The crop weather calendar on page 5 for a group of districts viz. Palghat, Trichur for irrigated paddy – II ( i. e. Rabi ) is given as an example. The sowing periods in this group districts varies from 38 to 42<sup>nd</sup> weeks (17 Sept.-21 Oct.) transplanting from 41 to 45<sup>th</sup> weeks (8 Oct.-11 Nov. ), and flowering from 49 to 1<sup>st</sup> weeks (3 Dec.-7 Jan. ). Grain formation in these areas occurs from 52 to 4<sup>th</sup> weeks (24 Dec.- 28 Jan.) while harvesting accomplished from 3<sup>rd</sup> week onwards.

One of the critical phases of the crop is grain formation. During 2<sup>nd</sup> week the average rainfall recorded is 0.6 mm. The mean daily maximum and minimum temperatures are 32.5 and 21.7 respectively while the average number of sunshine hour is 9.3.

Rains normally in this period adversely affect the yield. Similarly winds >15 km/hr which leads to lodging of plants also exerts adverse influence. Also maximum temperature  $> 36^{\circ}\text{C}$  and minimum temperature  $< 17^{\circ}\text{C}$  are harmful to crops. Warning may be issued, if these types of adverse weather are anticipated.

During the grain formation stage, cloudy weather favours incidence of pests like Rice bug, stem borer and Rice case worm. Diseases infestations like sheath blight, blast sheath rot can also affect paddy if high humidity prevails during the grain formation stage.

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	2	<b>Kottayam, Ernakulam, Alapuzha, Kollam, Thiruvananthapuram, Pathanumthitta</b>	Banana	9	<b>All districts</b>
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<b>Paddy – II</b>	4	<b>Kasargod, Kozhikode</b>	Coconut	11	<b>All districts</b>
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# CROP WEATHER CALENDAR

STATE : KERALA

CROP : PADDY-I [EARLY KHARIF]

VARIETY : JAYA, JYOTHI

SOIL : SANDY AND LATERITE

DISTRICTS : KASARGOD, KANNUR, MALAPPURAM

NON-IRRIGATED

DURATION : 110-125 DAYS

Weather warnings	Rain	>50 MM / DAY														>50 MM / DAY														ANY RAIN							
	Duration Of Wet Spell	>20 MM FOR 7 DAYS														>25 MM FOR 7 DAYS																					
	Cloudy Weather																																				
	Drought	>7 DAYS														>8 DAYS														>7 DAYS							
	High Winds	>50 KM / HOUR														>40 KM / HOUR														>35 KM / HOUR							
	Temperature	MAX. TEMP.>40°C, MIN. TEMP.<18°C														MAX. TEMP.>40°C, MIN. TEMP.<18°C																					
	Hail Storm																																				
Weather conditions favourable for incidence of pests and diseases	Pests	LEAF ROLLER, STEM BORER, GALL FLY, CASE WORM														GALL FLY, LEAF ROLLER, STEM BORER														STEM BORER, RICE BUG, BPH, LEAF ROLLER							
	Weather	HIGH RH, LOW TEMP.														HIGH RH, LOW TEMP.														HIGH RH, LOW TEMP.							
	Diseases	BLAST, BROWN LEAF SPOT														BLAST, SHEATH ROT, SHEATH BLIGHT, BACTERIAL LEAF BLIGHT, BROWN LEAF SPOT														BLAST, SHEATH ROT, SHEATH BLIGHT, BROWN LEAF SPOT							
	Weather	HIGH RH, LOW TEMP.														HIGH RH, LOW TEMP.														HIGH RH, LOW TEMP.							
Normal phase wise Water requirement(mm)		201.1														221.1														131.7							
Weekly normal weather	Rainfall(mm)total	20.9	26.3	26.9	48.1	66.2	84.9	176.7	187.6	193.0	219.3	233.6	209.7	213.9	192.1	156.1	135.0	106.6	94.3	74.7	67.1	54.2	59.5	69.8	70.6	65.4	72.2										
	Max.temp. °C	33.4	33.3	33.1	32.7	31.5	31.3	30.2	29.8	28.9	28.6	28.8	28.5	28.4	28.0	28.1	28.2	28.9	29.5	29.7	29.6	29.7	30.1	30.4	30.8												
	Min.temp. °C	25.7	25.9	25.8	25.4	25.8	24.9	24.0	23.7	23.3	23.5	23.6	23.4	23.3	23.2	23.3	23.2	23.3	23.6	23.6	23.6	23.7	23.9	23.7	23.7												
	Sunshine hours	9.4	9.2	9.4	9.1	8.8	8.2	8.0	7.2	6.2	5.1	4.3	4.4	4.2	4.1	4.2	4.7	4.4	5.5	6.1	5.5	6.2	6.2	6.4	6.9	7.1											
Life history and mean dates of important epochs of crop growth																																					
		TRANSPLANTING														FLOWERING														HARVESTING							
		SOWING														VEG. GROWTH														GRAIN FORMATION							
		17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44								
		MAY														JUNE														JULY							
Standard weeks		AUGUST														SEPTEMBER														OCTOBER							
Months																																					

# CROP WEATHER CALENDAR

2.

STATE : KERALA

**DISTRICTS :** KOTTAYAM, ERNAKULAM, ALAPUZHA, KOLLAM  
THIRUVANANTHAPURAM, PATHANJUMTHITTA

CROP : PADDY

M

**VARIETY** : RICE SHORT DURATION , JYOTHI  
                  BHARATHI , PATTAMBI  
**DURATION** : 110-125 DAYS

SOIL : SANDY LOAM.

CLAY LOAM AND LATERITE

# CROP WEATHER CALENDAR

STATE : KERALA

CROP : PADDY-I

VARIETY : JAYA, BHARATHI,  
MASURI, ASWATHI

SOIL : SANDY LOAM

DISTRICTS : PALAKKAD, IDUKKI

IRRIGATED

DURATION : 105-125 DAYS

Weather warnings	Rain																														
	Duration Of Wet Spell																														
	Cloudy Weather																														
	Drought																														
	High Winds																														
	Temperature	MAX. TEMP. $> 36^{\circ}\text{C}$ , MINT TEMP. $< 17^{\circ}\text{C}$												MAX. TEMP. $> 36^{\circ}\text{C}$ , MINT TEMP. $< 17^{\circ}\text{C}$																	
	Hail Storm																														
Weather conditions favourable for incidence of pests and diseases	Pests	RICE THRIPS, CASE WORM, STEM BORER										LEAF ROLLER, STEM BORER					RICE BUG, STEM BORER														
	Weather	HIGH RH										HIGH RH, CLOUDINESS					CLOUDINESS														
	Diseases	BLAST										BLAST, BLB					SHEATH BLIGHT, BLAST														
	Weather	HIGH RH, CLOUDINESS										HIGH RH					HIGH RH														
Normal phase wise Water requirement(mm)							195.7					214.5					186.1					137.9									
Weekly normal weather	Rainfall(mm)total	21.6	26.3	25.6	37.4	48.3	50.9	104.7	109.9	123.8	148.4	155.0	142.0	147.1	139.4	114.2	95.2	77.6	66.3	44.7	44.0	36.5	36.6	41.9							
	Max.temp. $^{\circ}\text{C}$	36.4	35.8	35.1	34.0	33.8	32.0	30.8	30.2	29.0	28.4	28.8	28.4	28.6	28.2	28.2	28.5	28.6	29.0	29.5	30.3	30.6	30.9	30.8							
	Min.temp. $^{\circ}\text{C}$	24.6	24.8	24.7	24.1	24.5	23.7	23.3	23.0	22.5	22.3	22.4	22.3	22.2	22.3	22.3	22.4	22.3	22.4	22.7	22.8	22.8	22.8	22.8							
	Sunshine hours	8.4	8.0	7.4	7.6	7.5	7.1	6.8	6.0	5.1	4.5	4.9	4.8	5.1	4.7	5.0	5.5	5.5	6.1	6.5	6.1	6.3	7.0	6.8							
Life history and mean dates of important epochs of crop growth		<p>The diagram illustrates the life cycle of the crop across 44 weeks. Key stages are marked with arrows: SOWING (weeks 17-21), TRANSPLANTING (weeks 21-25), VEG. GROWTH (weeks 25-29), FLOWERING (weeks 29-33), GRAIN FORMATION (weeks 33-37), and HARVESTING (weeks 37-41). The timeline spans from week 17 to week 44, covering the months of May through September.</p>																													
Standard weeks		17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44		
Months							MAY					JUNE					JULY					AUGUST					SEPTEMBER				

# CROP WEATHER CALENDAR

STATE : KERALA  
DISTRICTS : KASARGOD, KOZHIKODE

CROP : PADDY-II

IRRIGATED

VARIETY : JYOTHI, ASWATHI,  
BHARATHI

DURATION : 105-110 DAYS

SOIL : SANDY AND LATERITE

Weather warnings	Rain	>30 MM / DAY										>75 MM / DAY																													
	Duration Of Wet Spell	>20 MM FOR 3 DAYS										>50 MM FOR 5 DAYS																													
	Cloudy Weather																																								
	Drought	6 DAYS										8 DAYS										6 DAYS																			
	High Winds	>10 KM / HOUR										>20 KM / HOUR										>20 KM / HOUR																			
	Temperature	MAX. TEMP.>40°C, MIN. TEMP.<20°C										MAX. TEMP.>40°C, MIN. TEMP.<20°C										MAX. TEMP.>40°C, MIN. TEMP.<20°C																			
	Hail Storm																																								
Weather conditions favourable for incidence of pests and diseases	Pests	RICE STEM BORER, LEAF ROLLER, GALL FLY, BROWN SPOT HOPPER, RICE BUG										RICE STEM BORER, LEAF ROLLER, BROWN PLANT HOPPER, RICE BUG										RICE STEM BORER, LEAF ROLLER, BROWN PLANT HOPPER, RICE BUG																			
	Weather	LOW NIGHT TEMP. AND HUMIDITY																																							
	Diseases	BLAST, BROWN LEAF SPOT, BACTERIAL LEAF BLIGHT										BLAST, SHEATH ROT, SHEATH BLIGHT										BLAST, SHEATH ROT, SHEATH BLIGHT																			
	Weather	HIGH TEMP., LOW RH AND LACK OF RAINFALL																																							
Normal phase wise Water requirement(mm)		147.4										221.8										151.6																			
Weekly normal weather	Rainfall(mm)total	112.7	70.2	73.4	52.2	58.2	68.5	70.6	67.0	73.8	55.4	53.9	45.6	35.1	24.3	15.6	15.7	8.4	3.1	2.4	3.3	1.8	1.2	1.6	2.4	1.6	2.4														
	Max.temp. °C	28.4	28.8	29.3	29.6	29.4	29.6	30.0	30.4	30.8	30.9	31.1	31.3	31.7	31.8	31.9	32.1	32.0	32.0	31.7	31.7	31.8	31.8	31.6	31.8	31.9															
	Min.temp. °C	22.8	23.1	22.8	22.9	22.7	22.0	23.0	23.0	22.8	22.7	22.4	21.3	21.7	21.3	20.0	20.0	20.4	20.7	20.6	19.9	19.5	19.5	20.0	21.2	21.6	21.8														
	Sunshine hours	4.3	5.2	6.5	5.6	5.8	6.0	6.5	7.0	7.0	6.6	7.2	7.3	8.1	8.0	8.3	8.3	8.5	9.0	8.4	9.6	9.2	9.7	9.8	10.0	10.2	10.0														
Life history and mean dates of important epochs of crop growth																																									
Standard weeks		29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12				
Months		AUGUST					SEPTEMBER					OCTOBER					NOVEMBER					DECEMBER					JANUARY					FEBRUARY					MARCH				

# CROP WEATHER CALENDAR

STATE : KERALA  
DISTRICTS : PALAKKAD, TRISSUR

CROP : PADDY-II

IRRIGATED

VARIETY : JAYA, JYOTHI  
PAVIZHAM, IR - 8

DURATION : 100 - 120 DAYS

SOIL : SANDY LOAM

<b>Weather warnings</b>	<i>Rain</i>																												
	<i>Duration Of Wet Spell</i>	>35 MM FOR 3 DAYS												>100 MM FOR 5 DAYS												>50 MM FOR 2 DAYS			
	<i>Cloudy Weather</i>																												
	<i>Drought</i>	>7 DAYS												>10 DAYS												>20 DAYS			
	<i>High Winds</i>	>35 KM / HOUR												>25 KM / HOUR												>15 KM / HOUR			
	<i>Temperature</i>	MAX. TEMP.>36°C, MIN. TEMP.<17°C												MAX. TEMP.>36°C, MIN. TEMP.<17°C												MAX. TEMP.>36°C, MIN. TEMP.<17°C			
	<i>Hail Storm</i>																												
<b>Weather conditions favourable for incidence of pests and diseases</b>	<b>Pests</b>	RICE THRIPS, STEM BORER, RICE CASE WORM												GALL FLY, LEAF ROLLER, STEM BORER, RICE CASE WORM												RICE BUG, STEM BORER, RICE CASE WORM			
	<b>Weather</b>	DRY WEATHER												HIGH RH												CLOUDINESS			
	<b>Diseases</b>	BLAST, BROWN SPOT, SHEATH ROT												BLAST, BLB, SHEATH ROT												SHEATH BLIGHT, BLAST, SHEATH ROT			
	<b>Weather</b>	HIGH RH												HIGH RH												HIGH RH			
<b>Normal phase wise Water requirement(mm)</b>								141.3				214.1				231.6				167.6									
<b>Weekly normal weather</b>	<b>Rainfall(mm)total</b>	36.6	41.9	55.9	53.0	65.5	52.9	53.6	38.0	32.9	24.8	13.6	9.5	6.1	2.2	1.6	0.7	0.6	1.1	1.2	0.9	0.3	0.6						
	<b>Max.temp. °C</b>	30.3	30.5	30.8	30.8	31.0	31.3	31.6	31.4	31.9	31.8	32.0	32.1	32.3	32.1	32.2	32.3	32.5	32.5	32.8	33.1	33.5	33.5						
	<b>Min.temp. °C</b>	23.4	23.5	23.5	23.3	23.3	23.4	23.4	23.3	23.2	23.0	23.1	23.0	22.7	22.3	22.1	21.8	21.7	21.7	22.1	22.5	22.8	22.7						
	<b>Sunshine hours</b>	6.6	6.2	6.3	6.0	6.0	6.1	6.4	6.5	6.8	6.6	7.5	8.1	8.2	8.3	7.4	9.4	9.3	9.2	9.5	9.6	9.2	9.3						
<b>Life history and mean dates of important epochs of crop growth</b>																													
<b>Standard weeks</b>		35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	
<b>Months</b>						SEPTEMBER				OCTOBER				NOVEMBER				DECEMBER				JANUARY				FEBRUARY			

# CROP WEATHER CALENDAR

STATE : KERALA  
 DISTRICTS : THIRUVANANTHAPURAM, ERNAKULAM  
 KOTTAYAM

CROP : PADDY-II  
 NON-IRRIGATED

VARIETY : JYOTHI, BHARATHI, JAYA  
 DURATION : 110-125 DAYS

SOIL : CLAY LOAM AND  
 SANDY LOAM

Weather warnings	Rain	>30 MM / DAY												>100 MM / DAY												ANY RAIN									
	Duration Of Wet Spell	>20 MM FOR 4 DAYS												>100 MM FOR 7 DAYS																					
	Cloudy Weather																																		
	Drought	5 DAYS												10 DAYS												15 DAYS									
	High Winds	>50 KM / HOUR												>40 KM / HOUR												>35 KM / HOUR									
	Temperature	MAX. TEMP. >45° C, MIN. TEMP. <18° C												MAX. TEMP. >45° C, MIN. TEMP. <18° C																					
	Hail Storm																																		
Weather conditions favourable for incidence of pests and diseases	Pests	BROWN PLANT HOPPER, STEM BORER, RICE CASE WORM												LEAF ROLLER, GALL MIDGE, STEM BORER												LEAF ROLLER, STEM BORER, RICE BUG									
	Weather	HIGH RH, LOW TEMP.												HIGH RH, LOW TEMP.												HIGH RH, LOW TEMP.									
	Diseases	BLAST, SHEATH BLIGHT												BLAST, SHEATH BLIGHT, SHEATH ROT												BLAST, SHEATH BLIGHT									
	Weather	HIGH RH, LOW TEMP.												HIGH RH, LOW TEMP.												HIGH RH, LOW TEMP.									
Normal phase wise Water requirement(mm)								186.3						206.3						150.1						130.1									
Weekly normal weather	Rainfall(mm)total	84.3	74.3	64.1	46.5	51.5	43.3	49.1	70.5	64.3	68.9	83.3	76.2	66.7	58.7	46.7	37.5	24.0	22.1	13.2	9.7	6.3	6.3	5.0	2.5	3.9	4.1								
	Max.temp. °C	29.7	29.4	29.6	30.0	30.5	30.4	30.3	30.3	30.6	30.8	30.7	30.9	30.6	30.8	31.2	31.2	31.4	31.5	31.8	31.9	31.9	32.0	32.0	32.2	32.3	32.3								
	Min.temp. °C	23.1	23.1	23.1	23.2	23.4	23.4	23.4	23.5	23.6	23.6	23.4	23.5	23.5	23.5	23.4	23.3	23.2	23.0	23.0	22.7	22.8	22.1	22.2	22.2	22.3	22.7								
	Sunshine hours	5.4	4.9	5.4	6.1	6.3	6.5	6.6	6.3	6.7	6.3	6.1	6.0	6.6	6.3	6.6	6.9	7.5	8.2	8.1	8.4	7.6	9.5	9.6	9.6	9.5	9.7								
Life history and mean dates of important epochs of crop growth																																			
		TRANSPLANTING												FLOWERING												GRAIN FORMATION									
		SOWING												VEG. GROWTH												HARVESTING									
Standard weeks		31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5							
Months								AUGUST						SEPTEMBER						OCTOBER						NOVEMBER						DECEMBER			
																													JANUARY						

SSH → Sunshine hours, DUR → Duration, RH → Relative Humidity

# CROP WEATHER CALENDAR

STATE : KERALA  
DISTRICTS : ERNAKULAM

### CROP : PADDY-III

**VARIETY : JAYA , JYOTHI ,**

PAVIZHAN

## **SOIL : LATERITE, SANDY AND CLAY TYPE**

# CROP WEATHER CALENDAR

STATE : KERALA  
DISTRICTS : KANNUR

CROP : PULSES

NON-IRRIGATED

VARIETY : BLACK GRAM

DURATION : 90 DAYS

SOIL : LATERITE

Weather warnings	Rain	>20 MM / DAY												>50 MM / DAY												> 20 MM / DAY																									
	Duration Of Wet Spell																																																		
	Cloudy Weather																																																		
	Drought																																																		
	High Winds																																																		
	Temperature																																																		
	Hail Storm																																																		
Weather conditions favourable for incidence of pests and diseases	Pests	APHIDS , MEALY BUG												APHIDS , MEALY BUG												APHIDS , MEALY BUG , POD BORER																									
	Weather	CLOUDY WEATHER																																																	
	Diseases	LEAF SPOT , MOSAIC												LEAF SPOT , MOSAIC												LEAF SPOT , MOSAIC																									
	Weather																																																		
Normal phase wise Water requirement(mm)																																																			
Weekly normal weather	Rainfall(mm)total	28.9	24.0	19.2	7.1	9.4	6.3	2.7	1.7	1.9	0.9	0.5	0.9	0.8	0.8	0.5	1.8	0.6	0.5																																
	Max.temp. °C	31.3	31.5	31.8	32.3	32.4	32.3	32.1	32.1	32.1	31.9	31.7	32.1	32.2	31.8	32.1	32.4	33.0	32.3																																
	Min.temp. °C	22.7	22.8	22.4	22.2	22.8	23.2	22.3	22.2	21.8	21.4	22.1	21.4	21.4	22.0	22.6	23.0	23.5	23.5																																
	Sunshine hours	7.5	7.5	8.0	8.5	8.0	8.2	9.1	8.8	9.4	9.6	9.8	9.8	10.0	10.2	10.2	10.3	10.0	10.3																																
Life history and mean dates of important epochs of crop growth																																																			
Standard weeks		44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13																												
Months		NOVEMBER												DECEMBER												JANUARY						FEBRUARY						MARCH													

SSH → Sunshine hours , DUR → Duration , RH → Relative Humidity

## CROP WEATHER CALENDAR

9

STATE : KERALA

## CROP : BANANA

**VARIETY : NENDRAN, CHENKADALI, POOVAN**

SOIL : LATERITE

**DISTRICTS : ALL DISTRICTS**

#### **NON IRRIGATED**

PALAYAN 225

## CROP WEATHER CALENDAR

10.

STATE : KERALA

CROP : COFFEE

VARIETY : ARABICA, ROBUSTA

SOIL : LATERITE AND FOREST LOAM

DISTRICTS : IDUKKI, WAYANAD

NON-IRRIGATED

DURATION : PERENNIAL

Weather warnings	Rain																																															
	Duration Of Wet Spell	> 90 DAYS																																														
	Cloudy Weather																																															
	Drought																																															
	High Winds																																															
	Temperature																																															
	Hail Storm																																															
Weather conditions favourable for incidence of pests and diseases	Pests	WHITE STEM BORER, MEALY BUG										WHITE STEM BORER, MEALY BUG										WHITE STEM BORER, MEALY BUG																										
	Weather																																															
	Diseases	LEAF RUST										LEAF RUST										LEAF RUST																										
	Weather	HUMID CONDITIONS										HUMID CONDITIONS										HUMID CONDITIONS																										
Normal phase wise Water requirement(mm)																																																
Weekly normal weather	Rainfall(mm) total	4.2	4.2	5.7	5.7	4.6	4.7	4.8	6.8	14.3	14.9	21.4	27.6	33.5	33.5	36.0	41.5	40.8	56.0	68.3	54.6	134.2	132.6	140.0	160.2	158.2	144.0	196.0	141.0	116.3	100.0	94.1	84.4	63.1	54.1	69.1	71.1	74.9	74.2	81.9	75.1	71.7	61.0	48.3	34.1	27.1	24.1	
	Max.temp. °C	32.6	32.9	32.9	33.2	33.2	33.6	33.5	33.7	34.2	34.5	34.8	34.9	34.8	34.3	34.3	34.1	34.2	33.9	33.5	32.4	31.7	30.6	30.3	30.1	30.5	29.9	30.3	30.3	30.3	29.9	30.4	30.6	31.2	30.9	30.9	30.8	31.0	31.3	31.5	31.7	31.0	31.1	31.6	31.6	31.9	32.1	
	Min.temp. °C	22.2	22.1	22.5	22.7	22.7	22.9	22.9	23.2	23.4	23.7	24.1	24.0	23.7	24.2	24.2	24.1	23.4	23.5	23.4	23.3	23.0	22.9	22.8	23.1	22.7	22.7	22.9	22.7	22.6	22.9	23.2	23.1	23.2	23.1	23.2	23.3	23.3	23.1	23.2	23.1	23.0	23.2	22.8				
	Sunshine hours	9.8	9.6	9.7	9.3	9.5	9.3	9.3	9.4	9.4	9.6	9.4	9.4	9.6	9.0	8.0	7.3	7.2	7.0	7.1	6.1	5.7	5.2	4.8	3.9	3.7	3.1	3.5	3.5	3.6	5.1	4.4	4.8	5.5	6.5	6.9	6.8	5.6	6.3	5.8	5.3	5.2	6.0	6.4	6.2	6.8	7.5	8.2
Life history and mean dates of important epochs of crop growth																																																
Standard weeks		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Months		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER																												

## CROP WEATHER CALENDAR

11.

STATE : KERALA

**CROP : COCONUT**

**VARIETY : WCT, TXD, DX**

## **SOIL :**

**DISTRICTS : ALL DISTRICTS**

## NON-IRRIGATED

DURATION : PERENNIAL

## CROP WEATHER CALENDAR

12.

STATE : KERALA

**CROP : PEPPER**

**VARIETY : KARIMUNDA, PANNYUR -**

SOIL : LATERITE

## DISTRICTS :: ALL DISTRICTS

## **NON-IRRIGATED**

## DURATION : PERENNIAL.

## CROP WEATHER CALENDAR

13.

STATE : KERALA

**CROP : TAPIOCA**

**VARIETY : M - 4**

### **SOIL : LATERITE**

**DISTRICTS : ALL DISTRICTS**

#### **NON-IRRIGATED**

DURATION : 300 DAYS