Original

CROP WEATHER CALENDARS

FOR

HIMACHAL PRADESH

PUBLISHED BY
DIRECTOR GENERAL OF METEOROLOGY
MAUSAM BHAVAN
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2002

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PREFACE

Information on normal weather conditions and water requirement of crops is of vital importance for effective crop planning and management. From this point of view, the India Meteorological Department had compiled Crop Weather Calendars for major cereals, pulses and oilseed crops in the country on a districtwise basis. These calendars provide numerical as well as pictorial information on factors favourable or unfavourable to crops at various stages of their growth.

As and when new strains are introduced by plant breeders and bio-technologists, agricultural practices change accordingly, the crop weather calendars tend to lose some of their relevance. A periodical updating of these calendars thus becomes necessary. This publication which is the fourth in the new series of crop weather calendars is for the state of Himachal Pradesh for Wheat, Maize, Barley, Paddy, Gram, Potato, Peas, Tomato, Bean and Ginger crops.

It is hoped that the crop weather calendars would prove useful in a wide range of applications such as plant breeding, crop adaptation, drought proofing and irrigation management, ultimately resulting in maximizing the yield.

The preparation of the calendars would not have been possible without the close co-operation of the Department of Agriculture, Govt. of Himachal Pradesh, which is gratefully acknowledged. These calendars were prepared by the Division of Agricultural Meteorology, Meteorological Office, Pune. I have great pleasure in acknowledging the work done by Dr. H. P. Das, Director; Shri S. Sengupta, Meteorologist Grade I; Shri R. S. Abhyankar, Assistant Meteorologist Grade I; Smt R. S. Bhagwat and Smt M. V. Kamble in preparing these calendars.

PUNE : 411 005
Dated : 7th November 2002.

(R. R. KELKAR)
Director General Of Meteorology

CROP WEATHER CALENDAR

6 copies

STATE : HIMACHAL PRADESH
DISTRICTS : BILASPUR, MANDI, KULU

CROP : WHEAT
NON-IRRIGATED

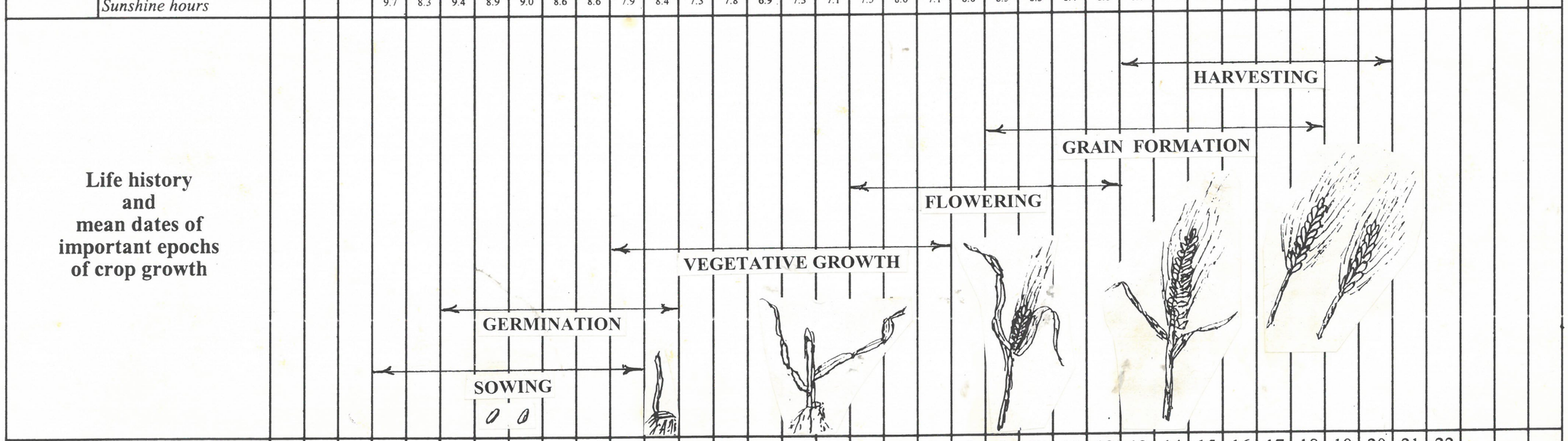
VARIETY : S - 308, HD-1553, VL-421, VL -616
DURATION : 150-180 DAYS

SOIL : CLAY LOAM/ SANDY LOAM

Weather warnings	*Rain*	> 50 MM/DAY	> 60 MM/DAY	ANY RAIN
	Duration of wet spell	> 15 MM FOR 3 DAYS	> 40 MM FOR 3 DAYS	> 15 MM FOR 2 DAYS
	Cloudy weather	CLOUDY WEATHER		
	Drought	10 DAYS	25 DAYS	30 DAYS
	High winds		> 20 KM/HR	> 20 KM/HR
	Temperature	MIN. TEMP. < 10°C, MAX. TEMP. > 25°C	MIN. TEMP. < 15°C, MAX. TEMP. > 30°C	MIN. TEMP. < 20°C, MAX. TEMP. > 35°C
	Hail Storm			HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	TERMITE, ARMY WORM	POD BORER, WHEAT APHIDS	
	Weather	LOW TEMP.	LOW TEMP. WITH CLOUDY WEATHER	
	Diseases	YELLOW RUST, BROWN RUST	YELLOW RUST, BROWN RUST	YELLOW RUST, BROWN RUST, SMUT, YELLOW ROT, BUNT LOOSE SMUT
	Weather	LONG SPELL OF RAINS WITH HIGH TEMP.	LOW TEMP., HIGH RH, LOW TEMP. WITH CLOUDY WEATHER	LOW TEMP. AND HIGH RH

Normal phase wise water requirement(mm)							14.5					21.8					59.3						46.6				21.3															
Weekly normal weather	*Rainfall(mm) total*				5.6	2.3	2.5	4.5	11.8	5.9	1.6	7.2	24.4	16.0	20.3	10.3	15.8	23.3	22.9	25.0	15.7	27.4	22.6	28.6	43.7	26.2	35.1	22.3	23.4	13.0	16.2	10.7	15.2	17.2	19.0				
	Max. temp. ^0C				26.3	25.7	24.9	23.6	22.6	20.2	20.0	19.2	18.3	15.4	16.5	16.4	16.1	15.0	15.2	17.0	18.6	19.2	20.5	21.1	22.5	24.3	27.0	26.9	28.3	28.8	31.0	30.8	31.7	31.6	32.7				
	Min. temp. ^0C				9.2	8.2	7.0	5.5	4.7	3.7	2.9	2.7	2.3	1.9	1.4	1.9	2.0	1.7	2.0	2.0	3.5	3.7	5.3	5.3	6.6	8.1	10.6	9.9	11.4	12.0	13.2	14.0	15.3	14.9	15.6				
	Sunshine hours				9.7	8.3	9.4	8.9	9.0	8.6	8.6	7.9	8.4	7.3	7.8	6.9	7.3	7.1	7.5	8.0	7.1	8.0	8.5	8.3	8.4	8.6	8.8	8.3	8.1	9.2	9.5	9.9	10.0	10.0	9.8				

Life history and mean dates of important epochs of crop growth



Standard weeks				43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				
Months						NOVEMBER				DECEMBER				JANUARY				FEBRUARY				MARCH				APRIL					MAY									

D.D.G.M.(AGRIMET), I.M.D., PUNE 2002.

RH - Relative Humidity

CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH
DISTRICTS : BILASPUR, HAMIRPUR, UNA

CROP : WHEAT
NON-IRRIGATED

VARIETY : S - 308, HD-1553, VL -616, SONALIKA, CAPB-1796
DURATION : 120-190 DAYS

SOIL : SANDY LOAM/ CLAY LOAM

Weather warnings	*Rain*	> 70 MM/DAY	> 80 MM/DAY	ANY RAIN
	Duration of wet spell	> 10 MM FOR 8 DAYS	> 15 MM FOR 8 DAYS	
	Cloudy weather			CLOUDY WEATHER
	Drought	> 12 DAYS	> 20 DAYS	> 30 DAYS
	High winds	> 20 KM/HR		> 50 KM/HR
	Temperature	MIN. TEMP. < 8°C, MAX. TEMP. > 30°C	MIN. TEMP. < 15°C, MAX. TEMP. > 30°C	MIN. TEMP. < 10°C, MAX. TEMP. > 40°C
	Hail Storm			HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	TERMITE, GRASS HOPPER	GRASS HOPPER, ARMY WORM., WHEAT BUG, APHIDS	WHEAT APHID, BUG
	Weather	HIGH RH AND TEMP.	HIGH RH AND TEMP.	HIGH RH AND TEMP.
	Diseases	RUST, POWDERY MILDEW	FLAG SMUT, BLACK RUST, BROWN RUST, YELLOW RUST	YELLOW RUST, BROWN RUST, LOOSE SMUT, EARCOCKLE DISEASE
	Weather	HIGH RH AND TEMP. WITH CLOUDY WEATHER	HIGH RH, RAINFALL, TEMP. WITH CLOUDY WEATHER	HIGH RH AND RAINFALL WITH HIGH TEMP.

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CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH
DISTRICTS : SOLAN

CROP : WHEAT
IRRIGATED

VARIETY : SONALIKA
DURATION : 150 DAYS

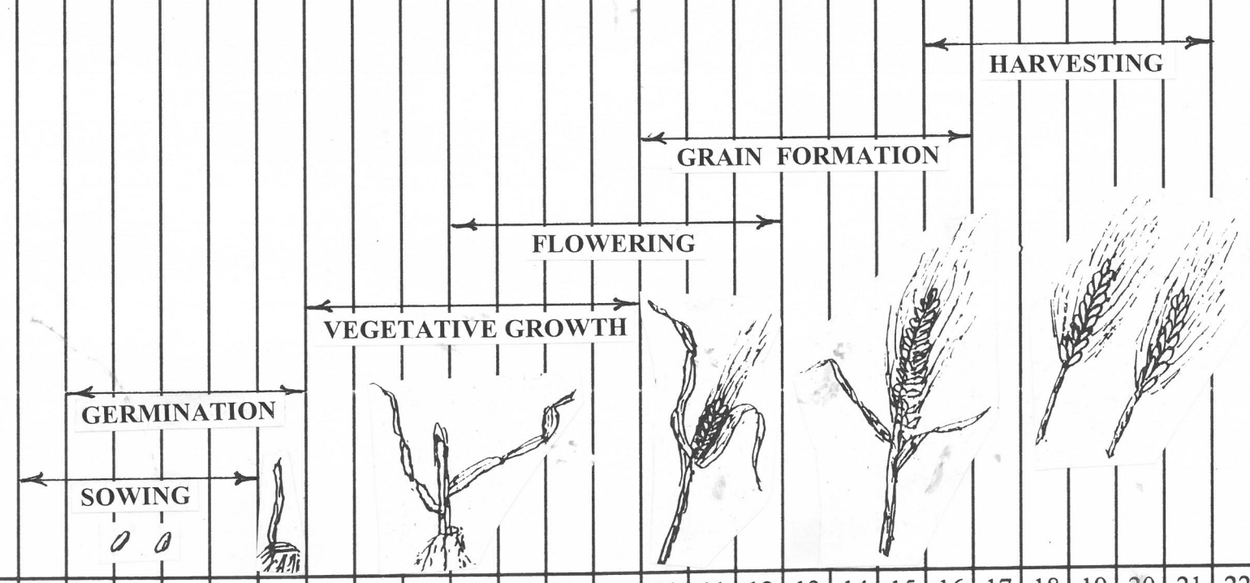
SOIL : SANDY LOAM

Weather warnings	*Rain*	> 25 MM/DAY	> 50 MM/DAY	ANY RAIN
	Duration of wet spell			
	Cloudy weather			CLOUDY WEATHER
	Drought	30 DAYS	30 DAYS	30 DAYS
	High winds	> 10 KM/HR	> 10 KM/HR	> 10 KM/HR
	Temperature	MAX. TEMP. >30^{0}C,MIN.TEMP.<8^{0}C	MAX. TEMP. >35^{0}C,MIN.TEMP.<8^{0}C	MAX. TEMP. >35^{0}C,MIN.TEMP.<8^{0}C
	Hail Storm			HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	TERMITE	TERMITE	TERMITE
	Weather	CLOUDY WEATHER	CLOUDY WEATHER	CLOUDY WEATHER
	Diseases	RUST	RUST	RUST
	Weather	CONTINUOUS AND EXCESSIVE RAINS WITH CLOUDY WEATHER	CONTINUOUS AND EXCESSIVE RAINS WITH CLOUDY WEATHER	CONTINUOUS AND EXCESSIVE RAINS WITH CLOUDY WEATHER

Normal phase wise water requirement(mm)	8.4	30.9	119.2	78.2	30.8

Weekly normal weather																																										
Rainfall(mm) total								0.0	4.9	1.0	38.5	14.6	10.3	6.8	17.4	15.7	13.6	21.1	21.9	21.1	9.3	23.7	5.9	14.3	3.6	8.3	12.4	28.1	9.4	11.5	15.0	19.1									
Max. temp. ^0C								20.9	19.2	18.6	15.4	15.6	17.3	17.5	18.1	17.4	18.7	20.1	22.2	24.3	23.8	25.0	25.5	27.4	27.4	29.9	30.1	32.8	33.1	32.8	33.5	35.3									
Min. temp. ^0C								9.9	9.1	8.9	6.9	6.8	7.1	7.2	7.3	7.2	7.7	9.4	9.9	10.3	11.2	12.0	12.1	15.3	15.3	18.2	18.1	21.3	21.4	21.4	20.8	21.4									
Sunshine hours								8.6	7.1	7.8	5.8	6.4	6.2	6.8	7.5	6.2	7.4	7.7	7.2	7.8	7.5	7.4	7.3	7.6	8.1	7.8	8.6	9.4	9.5	9.8	10.0	10.3									

Life history and mean dates of important epochs of crop growth



Standard weeks	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Months	DECEMBER				JANUARY				FEBRUARY					MARCH			APRIL					MAY				

D.D.G.M.(AGRIMET), I.M.D., PUNE 2002.

CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH
DISTRICTS : SIMLA
CROP : WHEAT
IRRIGATED
VARIETY : SONALIKA
DURATION : 150-210 DAYS
SOIL : SANDY LOAM/ CLAY LOAM

Weather warnings	*Rain*	ANY RAIN
	Duration of wet spell	
	Cloudy weather	CLOUDY WEATHER
	Drought	
	High winds	
	Temperature	HAIL STORM
	Hail Storm	
Weather conditions favourable for incidence of pests and diseases	*Pests*	
	Weather	
	Diseases	YELLOW RUST
	Weather	HIGH TEMPERATURE WITH HIGH HUMIDITY

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CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH
DISTRICTS : CHAMBA

CROP : TOMATO
NON-IRRIGATED

VARIETY : SOLAN GOLA
DURATION : 85-125 DAYS

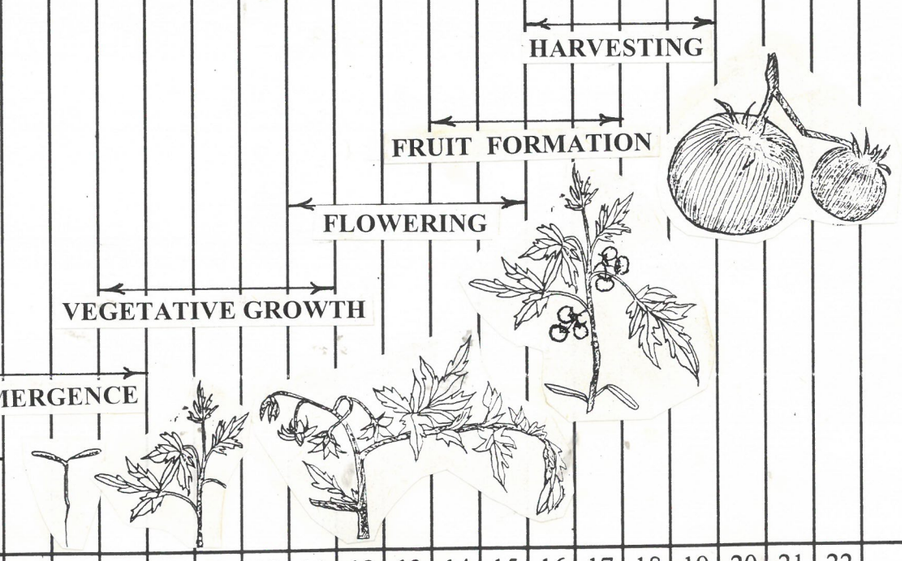
SOIL : LOAMY WITH FINE STONES

Weather warnings	*Rain*		ANY RAIN
	Duration of wet spell		
	Cloudy weather		CLOUDY WEATHER
	Drought		
	High winds		
	Temperature	MAX. TEMP. > 30°C, MIN. TEMP. < 10°C	MAX. TEMP. > 30°C, MIN. TEMP. < 10°C
	Hail Storm	HAIL STORM	HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	CUTWORM, FRUIT BORER	CUTWORM, FRUIT BORER
	Weather	DROUGHT CONDITION	DROUGHT CONDITION
	Diseases	EARLY LEAF BLIGHT	EARLY LEAF BLIGHT
	Weather	HIGH HUMIDITY	HIGH HUMIDITY

Normal phase wise water requirement(mm)		13.9	36.6	86.1	72.2	60.2	

Weekly normal weather	*Rainfall(mm) total*									8.4	6.9	1.5	8.0	8.7	13.7	8.0	7.1	2.2	10.2	9.7	10.0	10.1	10.7	10.8	2.8	6.4	3.5	7.1	11.7							
	Max. temp. ^0C									13.4	17.5	18.8	17.6	13.1	18.4	20.8	22.4	18.3	21.7	22.5	23.5	23.9	25.2	29.0	28.5	28.9	31.6	30.7	32.1							
	Min. temp. ^0C									3.6	3.5	5.2	3.8	3.8	4.7	5.8	6.1	7.9	6.0	6.9	6.8	10.5	11.8	14.0	14.4	14.8	16.9	16.8	17.5							
	Sunshine hours									8.0	6.0	7.0	7.4	6.3	7.5	7.0	8.1	8.4	7.5	7.6	7.1	7.8	8.2	8.6	9.0	10.5	9.6	9.5	10.5							

Life history and mean dates of important epochs of crop growth



Standard weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Months	JANUARY					FEBRUARY				MARCH				APRIL				MAY				

CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH **CROP** : TOMATO **VARIETY** : SOLAN GOLA, YASHWANT **SOIL** : SANDY LOAM/ CLAY LOAM

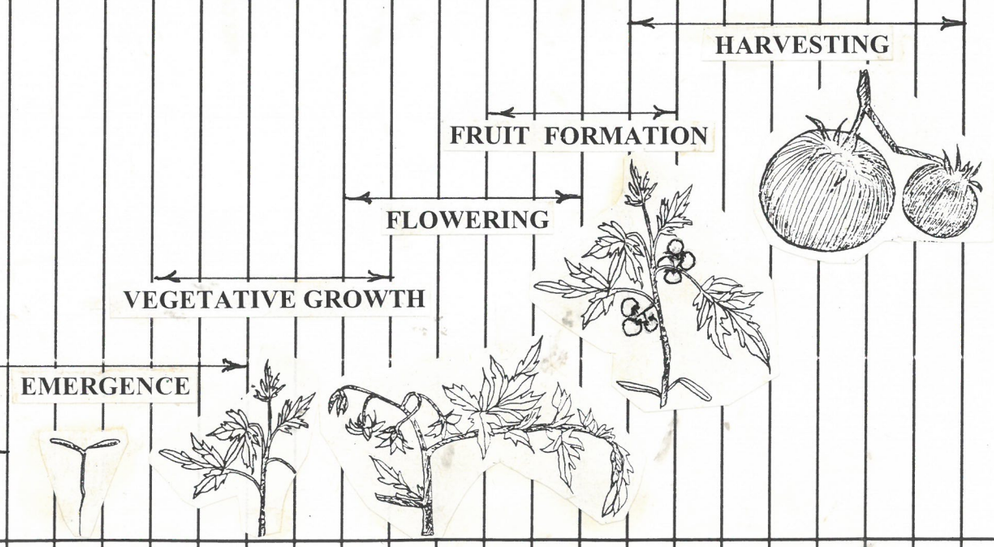
DISTRICTS : SIRMAUR (LOW HILLS) **IRRIGATED** **DURATION** : 85-125 DAYS

Weather warnings	*Rain*		
	Duration of wet spell		
	Cloudy weather	CLOUDY WEATHER	CLOUDY WEATHER
	Drought		
	High winds		
	Temperature	MAX. TEMP. > 38°C, MIN. TEMP. < 18°C	MAX. TEMP. > 38°C, MIN. TEMP. < 18°C
	Hail Storm		HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	FRUIT BORER, FRUIT FLEES	FRUIT BORER, FRUIT FLEES
	Weather	HIGH TEMP.	HIGH TEMP.
	Diseases	BUCK-EYE ROT, FRUIT ROT	BUCK-EYE ROT, FRUIT ROT
	Weather	HIGH TEMP.	HIGH TEMP.

Normal phase wise water requirement(mm)	58.8	102.4	144.5	167.8	36.1

Weekly normal weather																																									
Rainfall(mm) total							4.5	4.5	18.1	5.7	22.0	86.7	62.5	121.2	105.0	126.7	160.8	95.0	74.2	68.0	49.7	33.2	43.3	14.9	1.3	17.8	8.7	0.6	1.7	0.0	0.9									
Max. temp. ^0C							35.0	36.8	35.9	37.3	34.6	32.4	30.7	29.6	28.7	28.1	28.4	28.8	29.0	29.8	29.2	28.6	29.4	28.6	29.0	27.1	27.2	27.2	25.3	24.7	23.5									
Min. temp. ^0C							22.6	24.5	22.8	23.4	21.7	22.4	22.1	21.8	21.6	21.3	21.1	21.4	21.3	21.5	21.0	20.3	20.8	19.5	19.5	18.1	17.5	16.2	14.7	13.3	12.4									
Sunshine hours							10.7	10.7	9.3	9.6	9.1	7.6	6.4	6.2	7.0	6.8	6.5	6.2	8.0	8.1	7.5	8.0	8.5	8.0	8.4	9.5	9.9	9.6	9.5	9.5	9.0									

Life history and mean dates of important epochs of crop growth



Standard weeks	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
Months		JUNE				JULY				AUGUST				SEPTEMBER					OCTOBER				NOVEMBER				

CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH
DISTRICTS : SIRMAUR (MID HILLS)

CROP : TOMATO
IRRIGATED

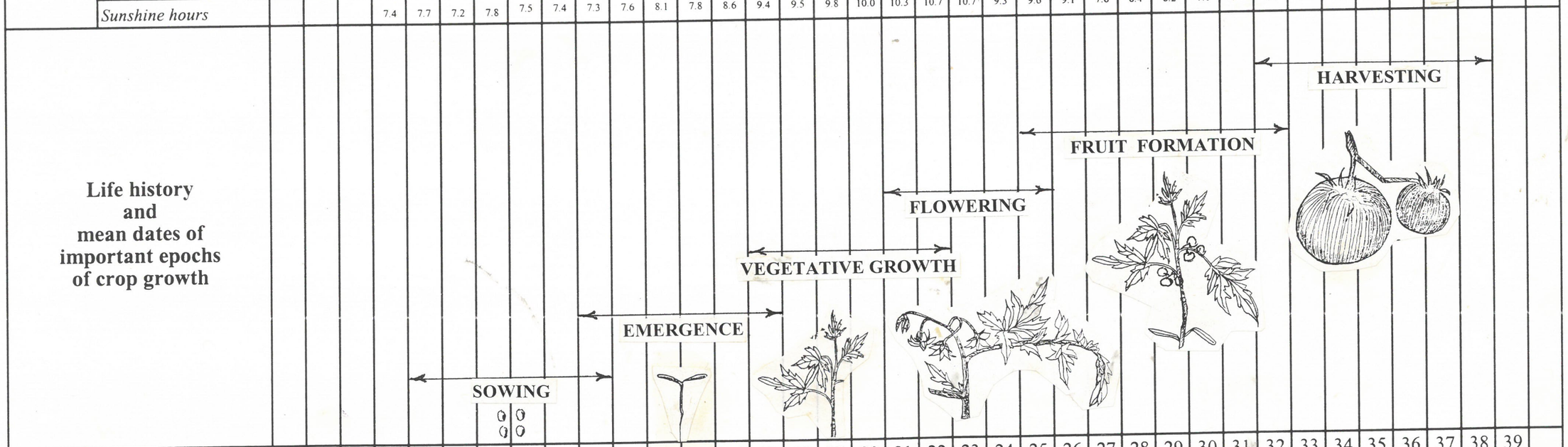
VARIETY : SOLAN GOLA, YESHWANT
DURATION : 85-125 DAYS

SOIL : SANDY LOAM/ CLAY LOAM

Weather warnings	*Rain*	ANY RAIN
	Duration of wet spell	
	Cloudy weather	
	Drought	
	High winds	
	Temperature	MAX. TEMP. > 27°C, MIN. TEMP. < 18°C; MAX. TEMP. > 27°C, MIN. TEMP. < 18°C; MAX. TEMP. > 27°C, MIN. TEMP. < 18°C
	Hail Storm	HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	FRUIT BORER, FRUIT FLEES
	Weather	HOT WEATHER
	Diseases	FRUIT ROT
	Weather	

Normal phase wise water requirement(mm)							28.7			82.6				359.8								94.1																				
Weekly normal weather	*Rainfall(mm) total*				13.6	21.1	21.9	21.1	19.3	23.7	5.9	14.3	3.6	8.3	12.4	28.1	9.4	11.5	15.0	19.1	4.5	4.5	18.1	5.7	22.0	86.7	62.5	121.2	105.0	126.7	160.8	95.0	74.2	68.0	49.7	33.2	43.3		
	Max. temp. ^0C				18.7	20.1	22.7	24.3	23.8	25.0	25.5	27.4	27.4	29.9	30.1	32.8	33.1	32.8	33.5	35.3	35.0	36.8	35.9	37.3	34.6	32.4	30.7	29.6	28.7	28.1	28.4	28.8	29.0	29.8	29.2	28.6	29.4		
	Min. temp. ^0C				7.7	9.4	9.9	10.3	11.2	12.0	12.1	15.3	15.3	18.2	18.1	21.3	21.4	21.4	20.8	21.4	22.6	24.5	22.8	23.4	21.7	22.4	22.1	21.8	21.6	21.3	21.1	21.4	21.3	21.5	21.0	20.3	20.8		
	Sunshine hours				7.4	7.7	7.2	7.8	7.5	7.4	7.3	7.6	8.1	7.8	8.6	9.4	9.5	9.8	10.0	10.3	10.7	10.7	9.3	9.6	9.1	7.6	6.4	6.2	7.0	6.8	6.5	6.2	8.0	8.1	7.5	8.0	8.5		

Life history and mean dates of important epochs of crop growth



Standard weeks	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
Months	FEBRUARY				MARCH					APRIL					MAY				JUNE				JULY				AUGUST				SEPTEMBER			

D.D.G.M.(AGRIMET), I.M.D., PUNE 2002.

CROP WEATHER CALENDAR

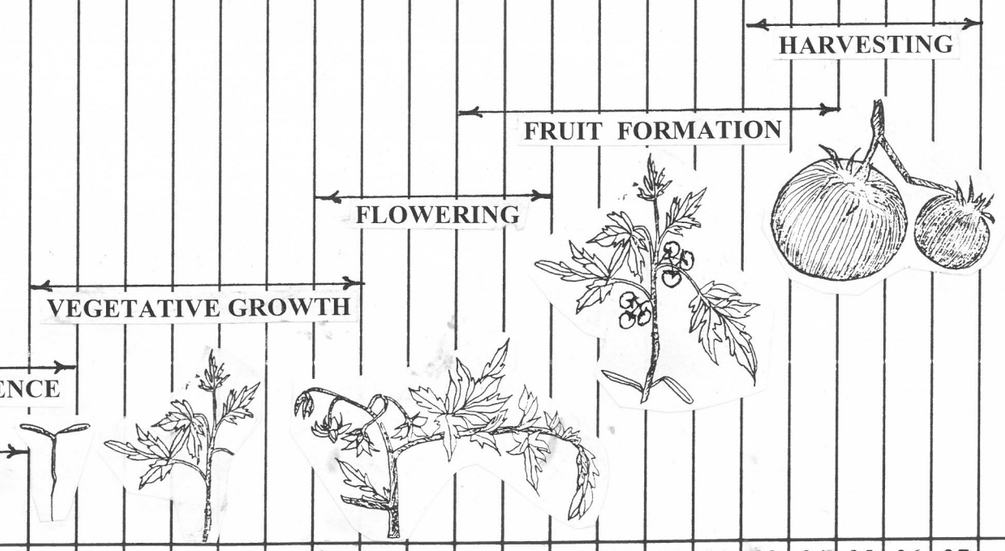
STATE : HIMACHAL PRADESH **CROP** : TOMATO **VARIETY** : SOLAN GOLA, YASHWANT **SOIL** : SANDY LOAM/ CLAY LOAM

DISTRICTS : SIRMAUR (HIGH HILLS) **NON-IRRIGATED** **DURATION** : 85-125 DAYS

Weather warnings	*Rain*	ANY RAIN
	Duration of wet spell	
	Cloudy weather	
	Drought	
	High winds	
	Temperature	MAX. TEMP > 27°C, MIN. TEMP < 18°C; MAX. TEMP > 27°C, MIN. TEMP < 18°C; MAX. TEMP > 27°C, MIN. TEMP < 18°C
	Hail Storm	HAILSTORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	FRUIT BORER, FRUIT FLEES
	Weather	HOT WEATHER
	Diseases	BUCK-EYE-ROT
	Weather	HOT AND HUMID WEATHER

Normal phase wise water requirement(mm)												**47.0**				**145.8**					**198.0**				**160.0**				**46.5**														
Weekly normal weather	*Rainfall(mm) total*										3.6	8.3	12.4	28.1	9.4	11.5	15.0	19.1	4.5	4.5	18.1	5.7	22.0	86.7	62.5	121.2	105.0	126.7	160.8	95.0	74.2	68.0	49.7	33.2					
	Max. temp. ^0C										27.4	29.9	30.1	32.8	33.1	32.8	33.5	35.3	35.0	36.8	35.9	37.3	34.6	32.4	30.7	29.6	28.7	28.1	28.4	28.8	29.0	29.8	29.2	28.6					
	Min. temp. ^0C										15.3	18.2	18.1	21.3	21.4	21.4	20.8	21.4	22.6	24.5	22.8	23.4	21.7	22.4	22.1	21.8	21.6	21.3	21.1	21.4	21.3	21.5	21.0	20.3					
	Sunshine hours										8.1	7.8	8.6	9.4	9.5	9.8	10.0	10.3	10.7	10.7	9.3	9.6	9.1	7.6	6.4	6.2	7.0	6.8	6.5	6.2	8.0	8.1	7.5	8.0					

Life history and mean dates of important epochs of crop growth



Standard weeks	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
Months	APRIL				MAY					JUNE				JULY				AUGUST					SEPTEMBER	

D.D.G.M.(AGRIMET), I.M.D., PUNE 2002.

CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH
DISTRICTS : KINNAUR, LAHUL AND SPITI, SIRMAUR

CROP : PEAS (KHARIF)
IRRIGATED

VARIETY : LINCOLN, LINCOLN ARKAL
DURATION : 120 -150 DAYS

SOIL : SANDY LOAM

Weather warnings	*Rain*			
	Duration of wet spell			CLOUDY WEATHER
	Cloudy weather			
	Drought			
	High winds			
	Temperature	MIN. TEMP. < 0°C	MIN. TEMP. < 16°C	MIN. TEMP. < 25°C
	Hail Storm			HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	CUT WORM, WHITE GRUBS, TERMITES, PEA LEAF MINER, POD BORER	CUT WORM, WHITE GRUBS, TERMITES, PEA LEAF MINER, POD BORER	CUT WORM, WHITE GRUBS, TERMITES, PEA LEAF MINER, POD BORER
	Weather	LOW TEMP., LOW RH	LOW TEMP., LOW RH	LOW TEMP., LOW RH
	Diseases	POWDERY MILDEW	POWDERY MILDEW	POWDERY MILDEW
	Weather	LOW TEMP., LOW RH	LOW TEMP., LOW RH	LOW TEMP., LOW RH

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CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH
DISTRICTS : SIMLA

CROP : PEAS (KHARIF)
IRRIGATED

VARIETY : ARKAL
DURATION : 90-120 DAYS

SOIL : SANDY LOAM/ CLAY LOAM

Weather warnings	*Rain*	
	Duration of wet spell	
	Cloudy weather	CLOUDY WEATHER
	Drought	
	High winds	
	Temperature	MIN. TEMP. < 10°C; MIN. TEMP. < 20°C, MAX. TEMP. > 25°C
	Hail Storm	HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	
	Weather	
	Diseases	POWDERY MILDEW
	Weather	HIGH TEMP. WITH MORE HUMIDITY

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CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH
DISTRICTS : SIMLA
CROP : PEAS (RABI)
IRRIGATED
VARIETY : LINCON
DURATION : 150-180 DAYS
SOIL : SANDY LOAM / CLAY LOAM

Weather warnings	*Rain*	
	Duration of wet spell	
	Cloudy weather	CLOUDY WEATHER
	Drought	
	High winds	
	Temperature	MIN. TEMP. < 10°C; MIN. TEMP. < 20°C, MAX. TEMP. > 25°C
	Hail Storm	HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	
	Weather	
	Diseases	POWDERY MILDEW; POWDERY MILDEW; POWDERY MILDEW
	Weather	HIGH TEMP. WITH MORE HUMIDITY; HIGH TEMP. WITH MORE HUMIDITY; HIGH TEMP. WITH MORE HUMIDITY

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CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH
DISTRICTS : BILASPUR, HAMIRPUR, KANGRA, SIRMAUR, UNA

CROP : MAIZE (KHARIF)
NON-IRRIGATED

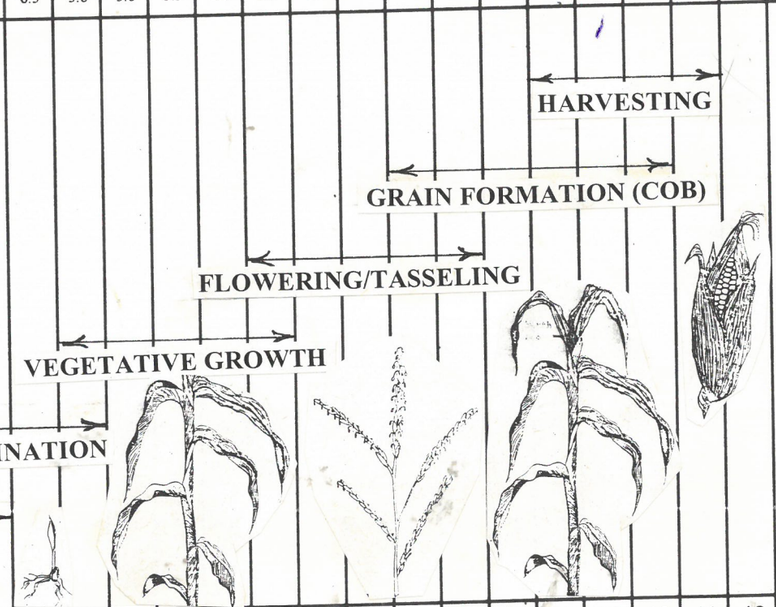
VARIETY : L-19, PARVATI, EARLY COMPOSITE, VIJAY COMPOSITE
DURATION : 95-120 DAYS

SOIL : CLAY LOAM/ SANDY LOAM/ LOAM

Weather warnings	*Rain*	> 100 MM/DAY	> 150 MM/DAY	ANY RAIN
	Duration of wet spell	> 15 MM FOR 20 DAYS	> 10 MM FOR 20 DAYS	
	Cloudy weather		CLOUDY WEATHER	CLOUDY WEATHER
	Drought	> 10 DAYS	15 DAYS	20 DAYS
	High winds		> 20 KM/HR	> 18 KM/HR
	Temperature	MIN. TEMP. < 15°C, MAX. TEMP. > 40°C	MIN. TEMP. <15°C, MAX. TEMP. > 40°C	MIN. TEMP. < 10°C, MAX. TEMP. > 45°C
	Hail Storm			HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	SEED ROT, SEEDLING ROT, SEEDLING BLIGHT	BACTERIAL STALK ROT, LEAF BLIGHT, BROWN STRIPS	HEAD SMUT, BLIGHT
	Weather	CONTINUOUS HEAVY RAIN WITH CLOUDY WEATHER	CONTINUOUS HEAVY RAIN WITH CLOUDY WEATHER	CONTINUOUS HEAVY RAINS AND WARM, HUMID WEATHER
	Diseases	MAIZE STEM BORER, TERMITE, SHOOT FLY	HAIRY CATERPILLAR, GRASS HOPPER, STEM BORER	STEM BORER, GRASS HOPPER, CATERPILLAR
	Weather	HEAVY RAINFALL AND WATER LOGGING CONDITIONS, WARM AND HUMID CONDITIONS	HEAVY RAINFALL AND WATER LOGGING CONDITIONS, WARM AND HUMID CONDITIONS	HEAVY RAINFALL WITH WATER LOGGING CONDITIONS, WARM AND HUMID CONDITIONS

Normal phase wise water requirement(mm)												42.6				89.3				107.0				53.9			19.2															
Weekly normal weather	*Rainfall(mm) total*										11.9	21.8	17.3	30.1	66.8	85.4	122.0	131.0	139.0	137.5	129.5	92.6	75.8	61.7	60.7	82.0	67.3	6.9	11.5	10.7												
	Max. temp. ^0C										36.0	34.5	35.4	34.9	32.9	31.9	30.8	29.8	29.7	29.5	29.6	30.2	30.2	30.3	29.9	30.1	29.5	29.5	28.5	28.2												
	Min. temp. ^0C										22.6	22.4	22.5	22.5	22.5	22.3	22.5	22.3	22.3	21.9	21.9	22.1	21.9	21.5	20.2	20.0	18.8	18.0	17.0	16.0												
	Sunshine hours										9.0	8.1	8.3	6.5	6.6	6.5	5.6	5.8	5.5	5.5	5.6	6.0	6.3	6.0	6.1	7.9	8.5	8.3	8.8	9.4												

Life history and mean dates of important epochs of crop growth



Standard weeks	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Months	JUNE					JULY				AUGUST					SEPTEMBER				OCTOBER				

RH - Relative Humidity

D.D.G.M.(AGRIMET), I.M.D., PUNE 2002.

CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH
DISTRICTS : BILASPUR, KULU MANDI, SOLAN

CROP : MAIZE (KHARIF) **NON-IRRIGATED**

VARIETY : L-19, EARLY COMPOSITE, HYBRID PIONEER, HIMALAYA II
DURATION : 90-135 DAYS

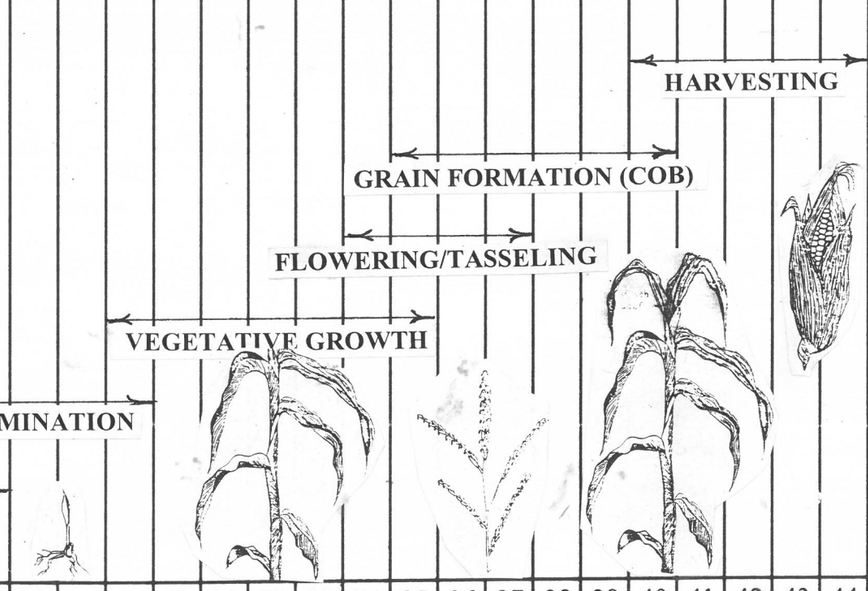
SOIL : CLAY LOAM/ SANDY LOAM

Weather warnings	*Rain*	> 30 MM/DAY	> 50 MM/DAY	ANY RAIN
	Duration of wet spell	> 20 MM FOR 7 DAYS	> 25 MM FOR 7 DAYS	
	Cloudy weather			CLOUDY WEATHER
	Drought	7 DAYS	10 DAYS	20 DAYS
	High winds	> 20 KM/HR	> 20 KM/HR	> 20 KM/HR
	Temperature	MIN. TEMP. < 20°C, MAX. TEMP. > 25°C	MIN. TEMP. < 15°C, MAX. TEMP. > 30°C	MIN. TEMP. < 12°C, MAX. TEMP. > 35°C
	Hail Storm			HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	HAIRY CATERPILLAR, CUTWORM, STEM BORER, RED MITE	APHIDS, CUTWORM, STEM BORER, RED MITE	BLISTER BEETLE, STEM BORER, RED MITE
	Weather	LONG SPELL OF RAINS WITH HIGH TEMP., HIGH RH	HIGH TEMP. WITH HIGH RH	HIGH TEMP. WITH HIGH RH
	Diseases	HELMINTHOSPORIUM, SEED ROT, STEM ROT, SMUT	BACTERIAL STALK ROT, LEAF BLIGHT, SMUT	LEAF AND SHEATH BLIGHT, HEAD SMUT
	Weather	LONG SPELL OF RAINS WITH NORMAL TEMP., HIGH TEMP., HIGH RH	LONG SPELL OF RAINS WITH NORMAL TEMP., HIGH TEMP., HIGH RH	LONG SPELL OF RAINS WITH NORMAL TEMP., HIGH TEMP., HIGH RH

Normal phase wise water requirement(mm)		**55.0**	**87.6**	**111.6**	**48.5**	**13.8**

Weekly normal weather	*Rainfall(mm) total*										15.0	27.2	28.8	27.4	52.5	52.1	66.5	71.6	62.8	95.8	81.9	56.1	45.0	49.9	41.4	30.7	19.5	17.5	9.1	9.0	4.5							
	Max. temp. ^0C										32.4	31.8	31.9	31.4	30.7	29.9	29.8	29.2	29.5	28.6	28.7	29.5	29.2	29.0	28.5	28.9	28.4	28.5	29.5	26.9	25.5							
	Min. temp. ^0C										16.4	17.3	18.1	18.8	18.8	19.1	19.4	19.5	19.8	19.3	18.9	18.8	18.4	17.5	16.1	15.1	13.8	12.5	11.4	10.0	8.8							
	Sunshine hours										9.7	8.3	8.6	7.6	7.4	6.2	6.4	6.6	6.7	6.5	6.1	7.5	7.6	7.0	7.2	8.1	8.6	8.4	8.9	9.6	9.7							

Life history and mean dates of important epochs of crop growth



Standard weeks									22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44							
Months										JUNE				JULY				AUGUST					SEPTEMBER				OCTOBER										

RH - Relative Humidity

CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH **CROP** : BARLEY **VARIETY** : SOMY **SOIL** : SANDY LOAM / CLAY LOAM

DISTRICTS : SIMLA **NON-IRRIGATED** **DURATION** : 150 DAYS

Weather warnings	*Rain*	ANY RAIN
	Duration of wet spell	
	Cloudy weather	CLOUDY WEATHER
	Drought	
	High winds	
	Temperature	MIN. TEMP. < 0°C; MAX. TEMP. > 20°C, MIN. TEMP. < 16°C; MIN. TEMP. < 20°C
	Hail Storm	HAIL STORM; HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	
	Weather	
	Diseases	
	Weather	

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CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH **CROP** : BARLEY **VARIETY** : DOLMA, COMPOSITE AND HYBRID HIM 123 **SOIL** : SANDY LOAM/ LOOSE SANDY

DISTRICTS : KINNAUR, SIRMAUR **NON-IRRIGATED/IRRIGATED** **DURATION** : 120-135 DAYS

Weather warnings	*Rain*	> 0.6 MM/DAY
	Duration of wet spell	
	Cloudy weather	
	Drought	
	High winds	
	Temperature	MIN. TEMP. < -13°C
	Hail Storm	HAIL STORM / HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	BORER, HAIRY CATERPILLAR
	Weather	HIGH TEMP FOLLOWED BY RAIN
	Diseases	RUST, SMUT,BACTERIAL LEAF BLIGHT / RUST, SMUT,BACTERIAL LEAF BLIGHT
	Weather	THE DISEASE IS VERY NOMINAL BECAUSE OF LOW TEMP AND LESS HUMIDITY / LOW TEMP, LOW RH
Normal phase wise water requirement(mm)		

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CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH **CROP** : POTATO **VARIETY** : KUFRI-JYOTI, KUFRI-CHANDERMUKHI, KCM/KJ **SOIL** : SANDY LOAM

DISTRICTS : KINNAUR, LAHUL AND SPITI, SIRMAUR **IRRIGATED** **DURATION** : 150 - 180 DAYS

Weather warnings	*Rain*			
	Duration of wet spell			
	Cloudy weather		CLOUDY WEATHER	
	Drought	10-15 DAYS		
	High winds			
	Temperature	MAX. TEMP.>30°C, MIN. TEMP.<24°C	MAX. TEMP.>30°C, MIN. TEMP.<16°C	MAX. TEMP.>30°C, MIN. TEMP.<24°C
	Hail Storm		HAIL STORM	
Weather conditions favourable for incidence of pests and diseases	*Pests*	TERMITES	TERMITES	TERMITES
	Weather	LOW TEMP., LOW RH	LOW TEMP., LOW RH	LOW TEMP., LOW RH
	Diseases	EARLY AND LATE BLIGHT, POTATO BLIGHT	EARLY AND LATE BLIGHT, POTATO BLIGHT	EARLY AND LATE BLIGHT, POTATO BLIGHT
	Weather	LOW TEMP., LOW RH	LOW TEMP., LOW RH	LOW TEMP., LOW RH

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CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH
DISTRICTS : SIMLA

CROP : POTATO
NON-IRRIGATED

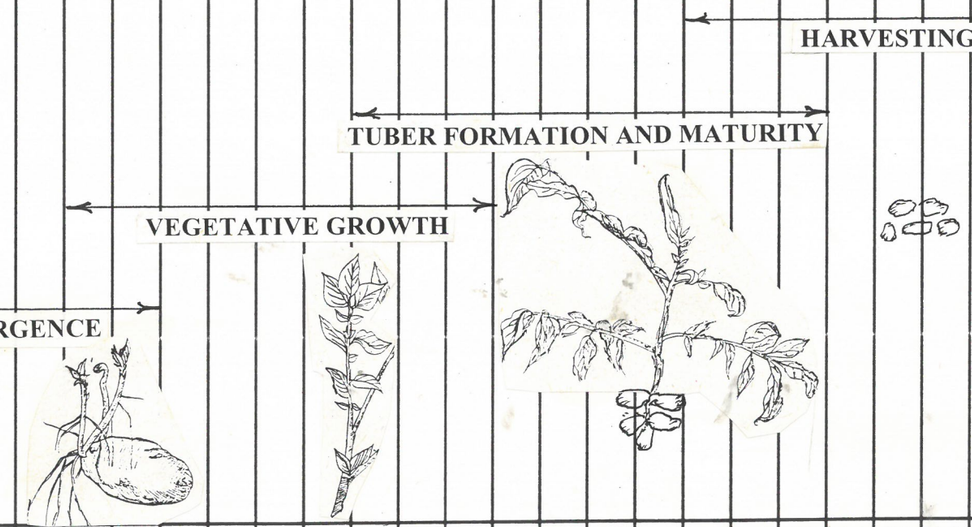
VARIETY : KUFRI-JYOTI
DURATION : 180-200 DAYS

SOIL : SANDY LOAM/ CLAY LOAM

Weather warnings	*Rain*	
	Duration of wet spell	
	Cloudy weather	CLOUDY WEATHER
	Drought	
	High winds	
	Temperature	MIN. TEMP. < 10°C; MAX. TEMP. > 25°C; MIN. TEMP. < 10°C
	Hail Storm	HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	
	Weather	
	Diseases	BLIGHT
	Weather	18°C TEMP. WITH MORE THAN 90% HUMIDITY

Normal phase wise water requirement(mm)					43.4				86.2				266.8					143.6							43.6											
Weekly normal weather	*Rainfall(mm) total*	9.5	14.0	16.2	11.9	14.1	8.4	6.9	20.6	17.7	13.1	8.7	23.6	19.0	18.7	14.8	23.6	48.4	56.1	89.4	55.8	81.3	85.4	94.0	81.0	75.4	62.2	47.2	49.8	105.2	67.1	74.6	17.6					
	Max. temp. °C	12.9	12.8	14.4	15.7	17.5	18.2	19.3	19.8	21.7	21.8	22.2	22.4	23.1	24.4	24.4	23.8	23.4	22.5	22.5	21.3	20.8	20.8	21.0	20.1	20.3	20.7	20.7	20.1	20.1	20.3	20.2	20.2					
	Min. temp. °C	4.7	4.6	6.2	7.1	8.6	9.3	10.3	10.9	12.6	12.6	12.9	13.2	13.9	15.0	15.2	14.8	14.9	14.9	14.6	14.5	14.3	14.3	14.5	14.2	14.0	14.2	13.9	13.2	12.6	12.4	12.2	11.9					
	Sunshine hours	8.0	7.9	8.8	8.9	8.8	8.5	8.8	9.6	9.8	10.0	9.7	10.1	10.2	10.3	8.0	10.1	8.1	7.6	7.3	5.4	5.9	5.4	4.8	4.7	5.4	7.4	6.7	7.0	7.6	8.5	9.7	9.0					

Life history and mean dates of important epochs of crop growth



Standard weeks	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
Months		MARCH				APRIL				MAY				JUNE				JULY				AUGUST				SEPTEMBER				OCTOBER						

CROP WEATHER CALENDAR

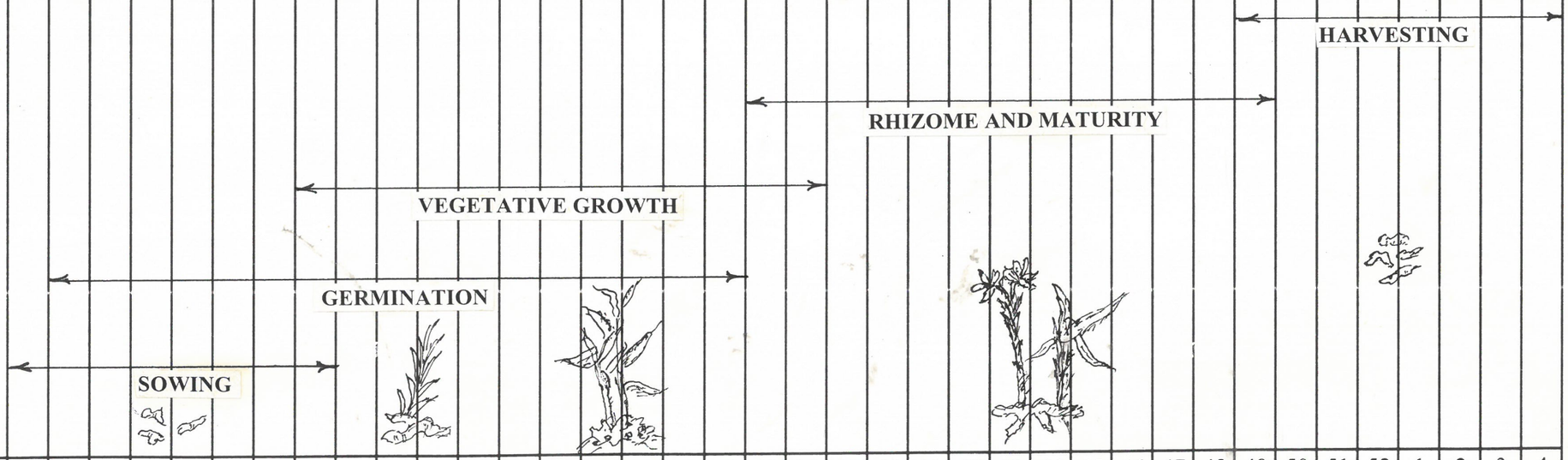
STATE : HIMACHAL PRADESH **CROP** : GINGER **VARIETY** : LOCAL **SOIL** : SANDY LOAM / CLAY LOAM

DISTRICTS : SIRMAUR (LOW HILLS) **NON-IRRIGATED** **DURATION** : 250-270 DAYS

Weather warnings	*Rain*	WATER LOGGED CONDITION DETRIMENTAL
	Duration of wet spell	
	Cloudy weather	
	Drought	4-6 WEEKS
	High winds	
	Temperature	
	Hail Storm	
Weather conditions favourable for incidence of pests and diseases	*Pests*	
	Weather	
	Diseases	SOFT ROT; SOFT ROT, RHIZOME ROT
	Weather	LOW TEMPERATURE; LOW TEMPERATURE, HIGH HUMIDITY
Normal phase wise water requirement(mm)		

Weekly normal weather																																							
Rainfall(mm) total	11.5	15.0	19.1	4.5	4.5	18.1	5.7	22.0	86.7	62.5	121.2	105.0	126.7	160.8	95.0	74.2	68.0	49.7	33.2	43.3	40.9	1.3	17.8	3.7	0.6	1.7	0.0	0.9	4.2	4.9	0.0	4.9	1.0	38.5	14.6	10.3	6.8	17.4
Max. temp. ^0C	32.8	33.5	35.0	35.0	36.8	35.9	37.3	34.6	32.4	30.7	29.6	28.7	28.1	28.4	28.8	29.0	29.8	29.2	28.6	29.4	28.6	29.0	27.1	27.2	27.2	25.3	24.7	23.5	23.2	21.3	20.9	19.2	18.6	15.4	15.6	17.3	17.5	18.1
Min. temp. ^0C	21.4	20.8	21.4	22.6	24.5	22.8	23.4	21.7	22.4	22.1	21.8	21.6	21.3	21.1	21.1	21.3	21.5	21.0	20.3	20.8	19.5	19.5	18.1	17.5	16.2	14.7	13.3	12.4	12.0	10.6	9.9	9.1	8.9	6.9	6.8	7.1	7.2	7.3
Sunshine hours	9.8	10.0	10.3	10.7	10.7	9.3	9.6	9.1	7.6	6.4	6.2	7.0	6.8	6.5	6.2	8.0	8.1	7.2	8.0	8.5	8.0	8.4	9.5	9.9	9.6	9.5	9.5	9.0	9.1	8.8	8.6	7.1	7.8	8.8	6.4	6.2	6.8	7.9

Life history and mean dates of important epochs of crop growth



Standard weeks	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	50	51	52	1	2	3	4
Months	MAY				JUNE				JULY					AUGUST				SEPTEMBER				OCTOBER					NOVEMBER				DECEMBER				JANUARY			

CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH **CROP** : GINGER **VARIETY** : LOCAL **SOIL** : SANDY LOAM / CLAY LOAM

DISTRICTS : SIRMAUR (MID HILLS) **NON-IRRIGATED** **DURATION** : 250-270 DAYS

Weather warnings	*Rain*	WATER LOGGED CONDITION DETRIMENTAL
	Duration of wet spell	
	Cloudy weather	
	Drought	35 DAYS
	High winds	
	Temperature	
	Hail Storm	
Weather conditions favourable for incidence of pests and diseases	*Pests*	
	Weather	
	Diseases	SOFT ROT SOFT ROT,RHIZOME ROT
	Weather	LOW TEMP LOW TEMP, HIGH HUMIDITY
Normal phase wise water requirement(mm)		

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CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH
DISTRICTS : BILASPUR, MANDI, SOLAN

CROP : PADDY (KHARIF)
IRRIGATED

VARIETY : HPU-741, PR-108, HIM I, HIM II
DURATION : 100-145 DAYS

SOIL : CLAY LOAM/ SANDY LOAM

Weather warnings	*Rain*	> 70 MM/DAY	> 75 MM/DAY	ANY RAIN
	Duration of wet spell	> 10 MM FOR 3 DAYS	> 25 MM FOR 4 DAYS	
	Cloudy weather			CLOUDY WEATHER
	Drought	> 7 DAYS	> 10 DAYS	> 15 DAYS
	High winds		> 20 KM\HR	> 40 KM\HR
	Temperature	MIN. TEMP. < 15°C, MAX. TEMP. > 30°C	MIN. TEMP. < 10°C, MAX. TEMP. > 35°C	MIN. TEMP. < 10°C, MAX. TEMP. > 35°C
	Hail Storm			HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	RICE GRASS HOPPER, LEAF HOPPER, RICE LEAF FOLDER	RICE GRASS HOPPER, LEAF HOPPER, STEM BORER	RICE GRASS HOPPER, LEAF HOPPER
	Weather	HIGH TEMP. WITH EXCESSIVE RAINS	HIGH TEMP. WITH STANDING WATER	HIGH TEMP. WITH CLOUDINESS
	Diseases	LEAF BLIGHT, SHEATH BLIGHT, BLAST	BROWN LEAF SPOT, BLAST, STALK ROT	SMUT, SHEATH ROT, BACTERIAL BLIGHT
	Weather	HIGH TEMP., HIGH RH	EXCESSIVE RAINS AND HIGH TEMP., CLOUDY WEATHER	HIGH TEMP. WITH RAINS

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CROP WEATHER CALENDAR

STATE : HIMACHAL PRADESH
DISTRICTS : CHAMBA

CROP : BEAN
NON-IRRIGATED

VARIETY : CONTENDER, KENTCLAY WOND
DURATION : 50-85 DAYS

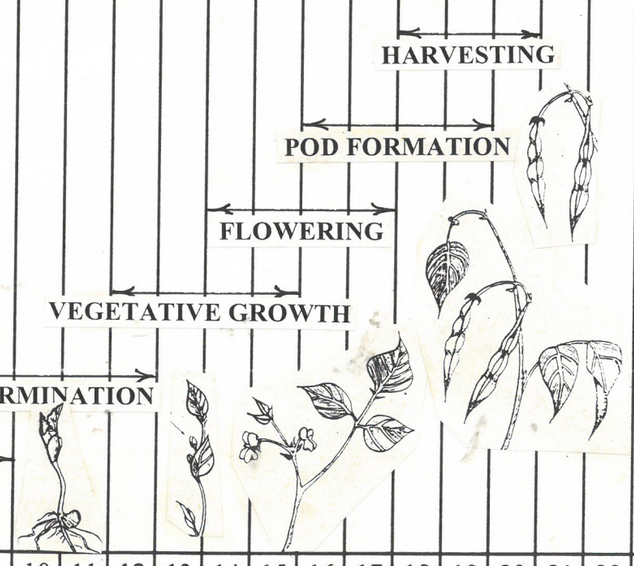
SOIL : LOAMY WITH FINE STONES

Weather warnings	*Rain*		ANY RAIN
	Duration of wet spell		
	Cloudy weather		CLOUDY WEATHER
	Drought		
	High winds		
	Temperature	MAX. TEMP. > 35°C, MIN. TEMP. < 15°C	MAX. TEMP. > 35°C, MIN. TEMP. < 15°C
	Hail Storm	HAIL STORM	HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	CUT WORM	CUT WORM
	Weather	DROUGHT CONDITION	DROUGHT CONDITION
	Diseases	LEAF ANGULAR SPOT	LEAF ANGULAR SPOT
	Weather	HIGH HUMIDITY, WET SPELL	HIGH HUMIDITY

Normal phase wise water requirement(mm)	10.2	36.4	72.8	53.8	60.0

Weekly normal weather																																									
	Rainfall(mm) total										8.0	8.7	13.7	8.0	7.1	2.2	10.2	9.7	10.0	10.1	10.7	10.8	2.8	6.4	3.5	7.1	11.7	2.7	5.2												
	Max. temp. ^0C										17.6	13.1	18.4	20.8	22.4	18.3	21.7	22.5	23.5	23.9	25.2	29.0	28.5	28.9	31.6	30.7	32.1	32.3	33.8												
	Min. temp. ^0C										3.8	3.8	4.7	5.8	6.1	7.9	6.0	6.9	6.8	10.5	11.8	14.0	14.4	14.8	16.9	16.8	17.5	18.1	18.4												
	Sunshine hours										7.4	6.3	7.5	7.0	8.1	8.4	7.5	7.6	7.1	7.8	8.2	8.6	9.0	10.5	9.6	9.5	10.5	10.1	10.2												

Life history and mean dates of important epochs of crop growth



Standard weeks	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Months		FEBRUARY					MARCH				APRIL				MAY				

D.D.G.M.(AGRIMET), I.M.D., PUNE 2002.

CROP WEATHER CALENDAR

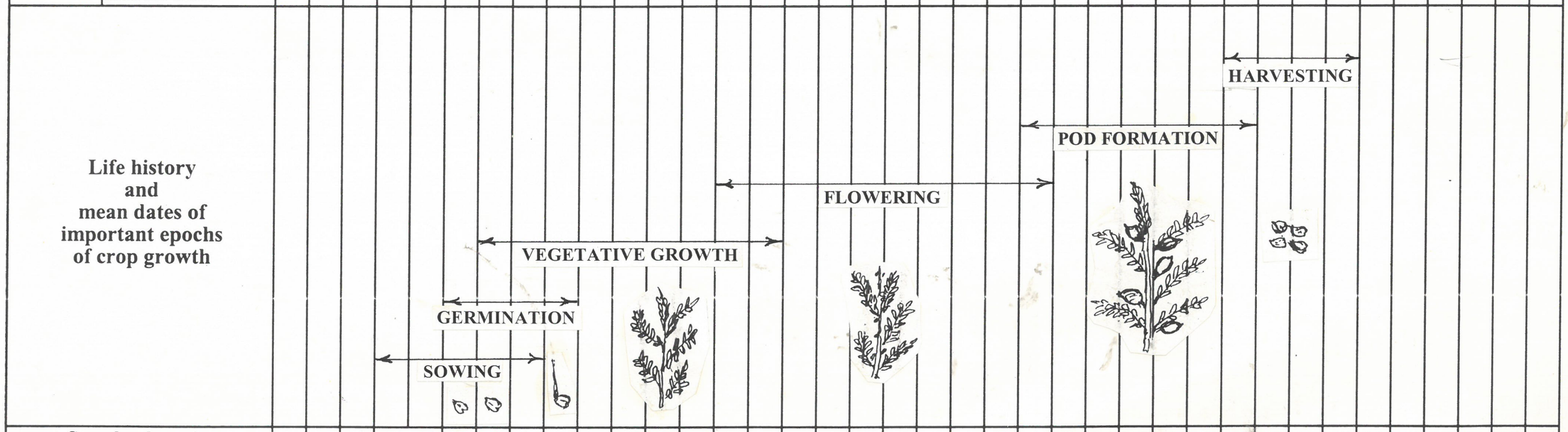
STATE : HIMACHAL PRADESH **CROP** : GRAM **VARIETY** : C - 235 **SOIL** : SANDY LOAM

DISTRICTS : SOLAN **NON-IRRIGATED** **DURATION** : 170 DAYS

Weather warnings	*Rain*	
	Duration of wet spell	
	Cloudy weather	CLOUDY WEATHER
	Drought	60 DAYS; 60 DAYS; 60 DAYS
	High winds	> 30 KM/HR; > 30 KM/HR; > 30 KM/HR
	Temperature	MAX. TEMP. > 35°C, MIN. TEMP. < 10°C; MAX. TEMP. > 35°C, MIN. TEMP. < 10°C; MAX. TEMP. > 35°C, MIN. TEMP. < 10°C
	Hail Storm	HAIL STORM
Weather conditions favourable for incidence of pests and diseases	*Pests*	POD BORER; POD BORER; POD BORER
	Weather	CLOUDY WEATHER; CLOUDY WEATHER; CLOUDY WEATHER
	Diseases	BLIGHT; BLIGHT; BLIGHT
	Weather	CLOUDY WEATHER; CLOUDY WEATHER; CLOUDY WEATHER

Normal phase wise water requirement(mm)						23.7				69.4								43.2				40.2				26.3																			
Weekly normal weather	*Rainfall(mm) total*			1.3	17.8	3.7	0.6	1.7	0.0	0.9	4.2	4.9	0.0	4.9	1.0	38.5	14.6	10.3	6.8	17.4	15.7	13.6	21.1	21.9	21.1	9.3	23.7	5.9	14.3	3.6	8.3	12.4	28.1	9.4	11.5	15.0	19.1		
	Max. temp. ^0C			29.0	27.1	27.2	27.2	25.3	24.7	23.5	23.2	21.3	20.9	19.2	18.6	15.4	15.6	17.3	17.5	18.1	17.4	18.7	20.1	22.7	24.3	23.8	25.0	25.5	27.4	27.4	29.9	30.1	32.8	33.1	32.8	33.5	35.3		
	Min. temp. ^0C			19.5	18.1	17.5	16.2	14.7	13.3	12.4	12.0	10.6	9.9	9.1	8.9	6.9	6.8	7.1	7.2	7.3	7.2	7.7	9.4	9.9	10.3	11.2	12.0	12.1	15.3	15.3	18.2	18.1	21.3	21.4	21.4	20.8	21.4		
	Sunshine hours			8.4	9.5	9.9	9.6	9.5	9.5	9.0	9.1	8.8	8.6	7.1	7.8	5.8	6.4	6.2	6.8	7.5	6.2	7.4	7.7	7.2	7.8	7.5	7.4	7.3	7.6	8.1	7.8	8.6	9.4	9.5	9.8	10.0	10.3		

Life history and mean dates of important epochs of crop growth



Standard weeks	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	13	14	15	16	17	18	19	20	21	22
Months	OCTOBER					NOVEMBER				DECEMBER				JANUARY					FEBRUARY				MARCH				APRIL				MAY				