



Farmer First Android Application
https://github.com/Shivam-gkms/Farmer_First

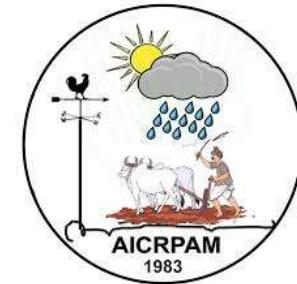
Farmer Service Portal
<https://shivam-gkms.github.io/amfu/>

The right side of the image features three circular logos. The top-left logo is for Chandra Shekhar Azad University of Agriculture and Technology, Kanpur, featuring a green border with text and a central emblem. The top-center logo is for the Indian Meteorological Department, showing a map of India with weather symbols and text in Hindi and English. The top-right logo is for AICRP on Agrometeorology (AICRPAM) from 1983, depicting a sun, clouds, and a person working in a field.

CROP WEATHER CALENDAR AMFU KANPUR, U.P.

DR. NAUSHAD KHAN
MR. AJAY KUMAR
MR. SHIVAM MISHRA
DR. C.B. SINGH

Developed by
Chandra Shekhar Azad University of
Agriculture & Technology, Kanpur (U.P.)
Under Gramin Krishi Mausam Sewa (GKMS) &
AICRP on Agrometeorology



Crop Weather Calendar of Kanpur Nagar, Uttar Pradesh

Agro-climatic Zone

Middle Gangetic Plain Region

Main Crops

Paddy, Wheat, Maize, Pulses, Oilseeds (Mustard), Vegetables

Soil Type

Alluvial Soil (Sandy Loam to Clayey Loam)



Developed by

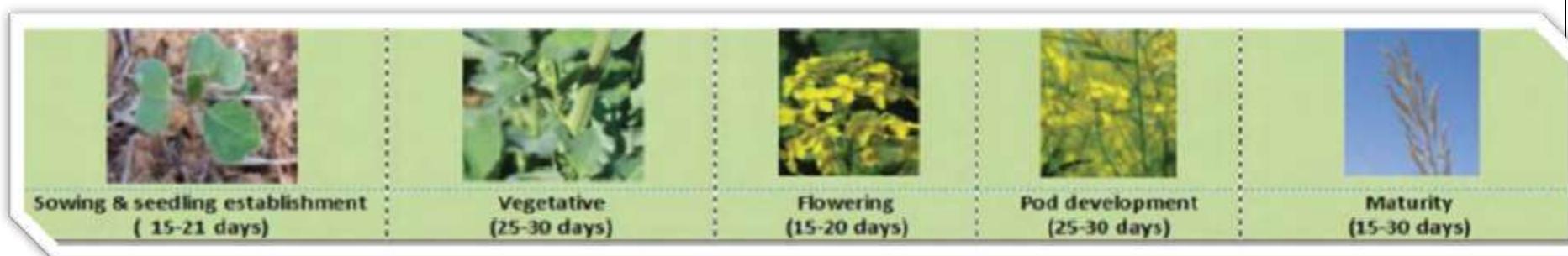
Chandra Shekhar Azad University of Agriculture & Technology, Kanpur (U.P.)
Under Gramin Krishi Mausam Sewa (GKMS) & AICRP on Agrometeorology

Crop-weather calendar of Rice (*Oryza Sativa L.*)

Crop-weather calendar of Wheat (*Triticum Aestivum*)

Crop-weather calendar of Mustard (*Brassica spp.*)

Climatic Normal	Crop-	Mustard		Duration – 125-130 (Days)																
	Month	October	November				December				January				February					
	Std. week	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9
	Tmax (°c)	31.4	31.5	30.4	27.5	26.8	25.2	24.2	24.6	22.7	19.9	16.8	16.4	12.5	17.7	23.1	21.5	26.0	26.2	25.5
	Tmin (°c)	14.5	15.2	14.6	12.9	11.4	12.7	13.2	8.4	7.6	8.3	10.0	5.5	5.3	5.1	9.0	9.3	10.1	11.6	13.5
	RHm(%)	83	93	92	93	94	94	92	94	90	95	95	96	92	95	92	88	92	87	83
	RHe(%)	37	41	45	62	54	61	65	46	47	69	81	72	77	63	55	54	48	45	51
	Rain(mm/week)	0.0	0.0	0.0	0.0	0.0	6.6	11.8	0.0	0.0	0.0	11.2	0.0	0.0	0.0	0.0	26.8	0.0	0.6	32.2



Phenophase wise weather for better yield	Sowing & emergence	Vegetative growth	Flowering	Siliqua formation	Seed development	Maturity
Tmax (°C)	30–35°C	25–30°C	20–25°C	18–24°C	20–25°C	25–30°C
Tmin (°C)	18–22°C	12–16°C	8–12°C	8–10°C	10–15°C	12–18°C
RHm(%)	80–85%	75–80%	70–80%	70–75%	65–70%	60–65%
RHe(%)	60–70%	55–65%	50–60%	50–55%	45–50%	40–50%
Rainfall (mm)	5–10 mm	<5 mm	<5 mm	Nil–2 mm	2–5 mm	Nil
Congenial weather for pest/diseases	Aphids (<i>Lipaphis erysimi</i>)	Tmax: 20–25°C - RH: 70–80% - Cloudy weather with light drizzle (Flowering to seed formation)				
	White Rust (<i>Albugo candida</i>)	Tmin: 10–15°C - RH: >90% - Frequent dew/fog, wet leaves (Flowering to pod formation)				
	Downy Mildew	Cool, moist conditions - RH >85% - Intermittent light rains (Vegetative to early flowering)				
	Alternaria Blight (<i>A. brassicace</i>)	Tmax: 20–28°C - RH >85% - Prolonged cloudy weather (Pod formation to maturity)				

Crop-weather calendar of Maize (*Zea Mays*)

Climatic Normal	Crop- Maize (Kharif)					Duration – 110-120 (Days)												
	Month	June				July					August				September			
	Std. week	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
	Tmax (°c)	39.9	42.2	34.7	33.8	33.3	33.9	34.9	35.6	33.0	33.4	33.5	32.2	35.0	33.5	32.9	33.6	34.3
	Tmin (°c)	24.8	29.8	27.6	25.9	26.5	26.0	27.2	28.9	26.0	26.6	26.4	25.6	25.9	24.8	25.5	24.6	23.7
	RHm(%)	52	48	79	89	92	92	80	80	88	81	81	87	80	82	92	87	85
	RHe(%)	29	29	69	72	68	71	65	57	73	65	70	79	64	67	72	69	56



Phenophase wise weather for better yield	Sowing to emergence	Knee height	Tasseling	Silk formation	Cob filling	Physiological maturity
Tmax (°C)	28–32°C	30–35°C	30–35°C	30–34°C	28–32°C	25–30°C
Tmin (°C)	20–24°C	22–26°C	22–26°C	22–26°C	20–24°C	18–22°C
RHm(%)	85–90%	80–85%	75–80%	75–80%	70–75%	65–70%
RHe(%)	70–80%	65–75%	60–70%	60–70%	55–65%	50–60%
Rainfall (mm)	40–60 mm	30–50 mm	20–40 mm	20–30 mm	15–25 mm	<10 mm (dry harvest)
Congenial weather for pest/diseases	Stem Borer (<i>Chilo partellus</i>)	Tmax: 30–35°C RH: 70–80% Frequent light rain (Early vegetative to tasseling)				
	Fall Armyworm (<i>Spodoptera frugiperda</i>)	Tmax: 28–34°C RH: 70–80% Sudden showers after dry spells (Emergence to cob formation)				
	Turicum Leaf Blight (<i>Exserohilum turicum</i>)	Tmax: 20–30°C RH >90% Frequent fog or dew (Vegetative to reproductive)				
	Downy Mildew	Tmax: 22–28°C RH >90% Cloudy, wet spells (Seedling stage)				
	Stem Borer (<i>Chilo partellus</i>)	Tmax: 30–35°C RH: 70–80% Frequent light rain (Early vegetative to tasseling)				

Crop-weather calendar of Maize (*Zea Mays*)

Climatic Normal	Crop-	Maize (Zaid)		Duration – 110-120 (Days)																
	Month	February	March				April				May				June					
	Std. week	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	Tmax (°C)	26.2	25.5	26.4	30.0	30.8	35.8	37.4	38.8	39.0	40.1	39.7	36.9	43.0	41.2	44.8	43.0	44.8	40.2	32.7
	Tmin (°C)	11.6	13.5	10.8	13.3	14.0	20.0	18.6	20.6	23.0	22.0	21.2	25.2	26.4	28.5	29.4	27.5	30.9	28.5	25.8
	RHm(%)	87	83	73	78	75	67	50	52	41	42	36	63	48	58	45	42	35	62	81
	RHe(%)	45	51	40	36	37	31	20	28	21	18	16	39	20	33	19	21	17	39	74



Phenophase wise weather for better yield	Sowing to emergence	Knee height	Tasseling	Silk formation	Cob filling	Physiological maturity
Tmax (°C)	28–32°C	30–35°C	30–35°C	30–34°C	28–32°C	25–30°C
Tmin (°C)	15–20°C	18–22°C	20–24°C	20–24°C	18–22°C	16–20°C
RHm(%)	70–80%	65–75%	60–70%	60–70%	55–65%	50–60%
RHe(%)	50–60%	45–55%	40–50%	40–50%	35–45%	30–40%
Rainfall (mm)	20–30 mm	15–25 mm	10–15 mm	10–15 mm	5–10 mm	<5 mm (dry at harvest)

Crop-weather calendar of Chickpea (*Cicer Arietinum*)

Crop-weather calendar of Potato (*Solanum tuberosum L.*)

Crop-weather calendar of Groundnut (*Arachis hypogaea* L.)

Crop-weather calendar of Groundnut (*Arachis hypogaea* L.)

Crop-weather calendar of Black Gram (*Vigna mungo*)

Climatic Normal	Crop- Black Gram (Kharif)											Duration –		95-100 (Days)		
	Month	July			August				September				October			
Std. week	29	30	31	32	33	34	35	36	37	38	39	40	41	42		
Tmax (°c)	26.7	26.2	25.5	26.4	30.0	30.8	35.8	37.4	38.8	39.0	40.1	39.7	35.4	31.7		
Tmin (°c)	11.1	11.6	13.5	10.8	13.3	14.0	20.0	18.6	20.6	23.0	22.0	21.2	20.5	17.3		
RHm(%)	83	87	83	73	78	75	67	50	52	41	42	36	77	83		
RHe(%)	50	45	51	40	36	37	31	20	28	21	18	16	42	42		
SS (hr./day)	8.0	7.1	8.0	7.1	5.8	5.9	7.3	8.8	8.3	7.6	7.0	6.9	9.1	7.5		
Rain(mm/week)	0.0	0.0	0.0	0.0	6.4	11.6	39.2	0.0	0.0	0.0	14.6	75.8	0.0	3.4		



Phenophase wise weather for better yield	Sowing to Emergence	Vegetative Growth	Flowering	Pod Formation	Seed Development	Maturity
Tmax (°c)	28–32°C	30–34°C	28–32°C	26–30°C	25–30°C	28–32°C
Tmin (°c)	22–25°C	22–26°C	22–24°C	20–22°C	20–22°C	22–24°C
RHm(%)	85–90%	80–85%	85–90%	80–85%	75–80%	70–75%
RHe(%)	70–80%	65–75%	70–80%	65–75%	60–70%	55–65%
SS (hr./day)	4–5	3–5	4–5	5–6	6–7	7–8
Rainfall (mm)	40–60 mm	30–50 mm	20–30 mm	15–25 mm	10–20 mm	<10 mm

Congenial weather for pest/diseases	Whitefly (YMV vector)	Tmax: 28–35°C RH: 60–70% Dry spells during rainy season (Any stage)
	Thrips & Aphids	Tmax: 28–32°C RH: 65–80% Intermittent rains (Vegetative to flowering)
	Cercospora Leaf Spot	RH >85% Leaf wetness >10 hrs Tmax: 26–30°C (Vegetative to pod filling)
	Powdery Mildew	Warm days + humid nights Tmax: 28–32°C (Pod filling to maturity)
	Root Rot / Collar Rot	Saturated soil, poor drainage Temp: 28–32°C (Sowing to early growth)

Crop-weather calendar of Black Gram (*Vigna mungo*)

Climatic Normal	Crop- Black Gram (Zaid)							Duration – 75-80 (Days)						
	Month	February			March				April					
	Std. week	7	8	9	10	11	12	13	14	15	16	17	18	
	Tmax (°c)	26.7	26.2	25.5	26.4	30.0	30.8	35.8	37.4	38.8	39.0	40.1	39.7	
	Tmin (°c)	11.1	11.6	13.5	10.8	13.3	14.0	20.0	18.6	20.6	23.0	22.0	21.2	
	RHm(%)	83	87	83	73	78	75	67	50	52	41	42	36	
	RHe(%)	50	45	51	40	36	37	31	20	28	21	18	16	
SS (hr./day)	8.0	7.1	8.0	7.1	5.8	5.9	7.3	8.8	8.3	7.6	7.0	6.9		
Rain(mm/week)	0.0	0.0	0.0	0.0	6.4	11.6	39.2	0.0	0.0	0.0	14.6	75.8		



Phenophase wise weather for better yield	Sowing to Emergence	Vegetative Growth	Flowering	Pod Formation	Seed Development	Maturity
Tmax (°C)	32–36°C	34–38°C	32–36°C	30–34°C	30–34°C	34–38°C
Tmin (°C)	20–24°C	22–26°C	22–25°C	20–24°C	20–22°C	22–26°C
RHm(%)	60–70%	55–65%	60–70%	55–65%	50–60%	45–55%
RHe(%)	40–50%	35–45%	40–50%	35–45%	30–40%	25–35%
SS (hr./day)	8–9	9–10	8–9	8–9	9–10	10–11
Rainfall (mm)	10–20 mm	5–10 mm	5–10 mm	5–10 mm	<5 mm	Nil

Congenital weather for pest/diseases	Whitefly	Tmax: 32–38°C RH: 50–60% Dry weather (Vegetative to flowering)
	Thrips & Aphids	Tmax: 30–35°C RH: 60–70% Moist but not rainy conditions (Vegetative to pod formation)
	YMV (Yellow Mosaic Virus)	Spread by whitefly; hot and dry conditions High during 30–38°C Tmax & low RH (Any stage)
	Powdery Mildew	Tmax: 28–32°C RH >70% Dry days followed by light showers (Pod development to maturity)
	Cercospora Leaf Spot	Tmax: 28–34°C RH >80% Cloudy weather + high leaf wetness (Vegetative to pod formation)

Crop-weather calendar of Green Gram (*Vigna radiata* L.)

Climatic Normal	Crop- Green Gram (Kharif)										Duration –		70-75 (Days)		
	Month	July		August				September				October			
	Std. week	30	31	32	33	34	35	36	37	38	39	40	41	42	43
	Tmax (°c)	35.6	33.0	33.4	33.5	32.2	35.0	33.5	32.9	33.6	34.3	33.7	35.4	31.7	31.4
	Tmin (°c)	28.9	26.0	26.6	26.4	25.6	25.9	24.8	25.5	24.6	23.7	22.1	20.5	17.3	14.5
	RHm(%)	80	88	81	81	87	80	82	92	87	85	82	77	83	83
	RHe(%)	57	73	65	70	79	64	67	72	69	56	58	42	42	37
	SS (hr./day)	7.0	2.1	2.8	3.2	2.6	2.6	5.6	2.2	3.6	7.5	7.3	9.1	7.5	8.8
	Rain(mm/week)	8.1	38.0	0.0	16.4	128.0	0.0	25.6	79.2	45.0	0.0	15.7	0.0	3.4	0.0



Phenophase wise weather for better yield	Sowing to Emergence	Vegetative Growth	Flowering	Pod Formation	Seed Filling	Maturity
Tmax (°C)	28–32°C	30–34°C	28–32°C	26–30°C	26–30°C	30–34°C
Tmin (°C)	22–25°C	22–26°C	22–24°C	20–22°C	20–22°C	22–24°C
RHm(%)	85–90%	80–85%	85–90%	80–85%	75–80%	70–75%
RHe(%)	70–80%	65–75%	70–80%	65–75%	60–70%	55–65%
SS (hr./day)	4–5	3–5	4–5	5–6	6–7	7–8
Rainfall (mm)	40–60 mm	30–50 mm	20–30 mm	15–25 mm	10–20 mm	<10 mm

Congenital weather for pest/diseases	Whitefly (YMV vector)	Tmax: 30–35°C RH: 60–70% Dry breaks during monsoon (Any stage)
	Thrips & Aphids	Tmax: 28–32°C RH: 65–75% Cloudy, humid weather (Vegetative to flowering)
	Powdery Mildew	Tmax: 25–30°C RH >70% Dry days + high humidity (Pod development to maturity)
	Cercospora Leaf Spot	RH >85% Leaf wetness >10 hrs Cloudy spells (Vegetative to pod formation)
	Root Rot	Poorly drained soils High rainfall + high temp (28–32°C) (Sowing to early growth)

Crop-weather calendar of Green Gram (*Vigna radiata* L.)

Climatic Normal	Crop- Greem Gram (Zaid)			Duration – 65-70 (Days)							
	Month	February			March				April		
	Std. week	11	12	13	14	15	16	17	18	19	20
	Tmax (°c)	30.0	30.8	35.8	37.4	38.8	39.0	40.1	39.7	36.9	43.0
	Tmin (°c)	13.3	14.0	20.0	18.6	20.6	23.0	22.0	21.2	25.2	26.4
	RHm(%)	78	75	67	50	52	41	42	36	63	48
	RHe(%)	36	37	31	20	28	21	18	16	39	20
	SS (hr./day)	8.1	7.6	6.8	6.5	6.9	7.7	8.2	9.0	7.5	8.4
	Rain(mm/week)	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0



Phenophase wise weather for better yield	Sowing to Emergence	Vegetative Growth	Flowering	Pod Formation	Seed Filling	Maturity
Tmax (°c)	32–36°C	34–38°C	32–36°C	30–34°C	28–32°C	34–38°C
Tmin (°c)	20–24°C	22–26°C	22–24°C	20–22°C	18–22°C	22–26°C
RHm(%)	55–65%	50–60%	55–65%	50–60%	45–55%	40–50%
RHe(%)	35–45%	30–40%	35–45%	30–40%	25–35%	20–30%
SS (hr./day)	8–9	9–10	8–9	9–10	9–10	10–11
Rainfall (mm)	5–15 mm (mostly irrigated crop)	5–10 mm	5–10 mm	<5 mm	<5 mm	Nil

Congenital weather for pest/diseases	Whitefly (YMV vector)	Tmax: 32–38°C RH: 40–60% Dry, warm conditions (Any stage)
	Thrips & Aphids	Tmax: 30–35°C RH: 55–65% Cloudy + humid weather after irrigation (Vegetative to flowering)
	Powdery Mildew	Tmax: 28–32°C High day temp + cool nights + low RH (Pod formation to maturity)
	Cercospora Leaf Spot	RH >65% Warm, humid spells (especially under irrigation) (Vegetative to pod development)
	Root Rot	Soil temp: >30°C Poor drainage or excess irrigation (Early stages)

Crop-weather calendar of Sesame (*Sesamum indicum* L.)

Climatic Normal	Crop- Sesame (Till)							Duration – 90-100 (Days)								
	Month	July			August				September				October			
	Std. week	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
	Tmax (°c)	33.3	33.9	26.7	26.2	25.5	26.4	30.0	30.8	35.8	37.4	38.8	39.0	40.1	39.7	35.4
	Tmin (°c)	26.5	26.0	11.1	11.6	13.5	10.8	13.3	14.0	20.0	18.6	20.6	23.0	22.0	21.2	20.5
	RHm(%)	92	92	83	87	83	73	78	75	67	50	52	41	42	36	77
	RHe(%)	68	71	50	45	51	40	36	37	31	20	28	21	18	16	42
	SS (hr./day)	3.0	2.2	8.0	7.1	8.0	7.1	5.8	5.9	7.3	8.8	8.3	7.6	7.0	6.9	9.1
	Rain(mm/week)	40.6	47.4	0.0	0.0	0.0	0.0	6.4	11.6	39.2	0.0	0.0	0.0	14.6	75.8	0.0



Phenophase wise weather for better yield	Sowing to Emergence	Vegetative Growth	Flowering	Capsule Formation	Seed Maturity
Tmax (°c)	30–35°C	32–38°C	30–34°C	28–32°C	28–32°C
Tmin (°c)	22–26°C	24–28°C	24–26°C	22–24°C	20–24°C
RHm(%)	70–80%	65–75%	70–80%	65–75%	60–70%
RHe(%)	60–70%	55–65%	60–70%	55–65%	50–60%
SS (hr./day)	6–7	7–9	6–7	7–8	8–9
Rainfall (mm)	30–40 mm	25–35 mm	15–25 mm	10–15 mm	<10 mm
Congenial weather for pest/diseases	Leaf Roller & Capsule Borer	Tmax: 30–35°C RH: 60–70% Intermittent rainfall (Flowering to capsule stage)			
	Gall Fly	Tmax: 28–32°C RH >75% Moist conditions (Vegetative to flowering)			
	Phyllody (Mycoplasma)	Spread by leafhopper under warm and dry conditions (Any stage (appears at flowering))			
	Alternaria Leaf Spot	RH >80% Prolonged leaf wetness Temp: 25–30°C (Vegetative to flowering)			
	Bacterial Blight	RH >85% Rain splashes + wounds (Pod development)			
	Leaf Roller & Capsule Borer	Tmax: 30–35°C RH: 60–70% Intermittent rainfall (Flowering to capsule stage)			



Crop Weather Calendar of Auraiya District, Uttar Pradesh

Agro-climatic Zone

Middle Gangetic Plain
Region

Main Crops

Paddy, Wheat, Maize, Pulses,
Oilseeds (Mustard), Vegetables

Soil Type

Alluvial Soil (Sandy Loam to
Clayey Loam)



Developed by

Chandra Shekhar Azad University of Agriculture & Technology, Kanpur (U.P.)

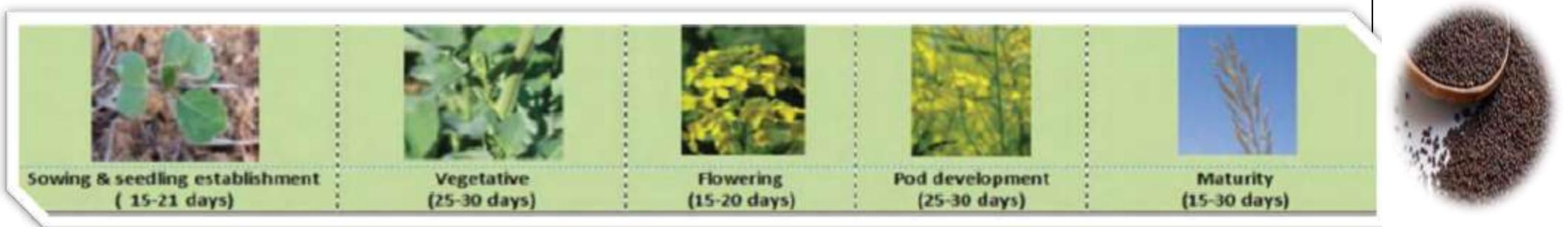
Under Gramin Krishi Mausam Sewa (GKMS), AMFU Kanpur & AICRP on Agrometeorology

Crop-weather calendar of Rice (*Oryza Sativa L.*)

Crop-weather calendar of Wheat (*Triticum Aestivum*)

Crop-weather calendar of Mustard (*Brassica spp.*)

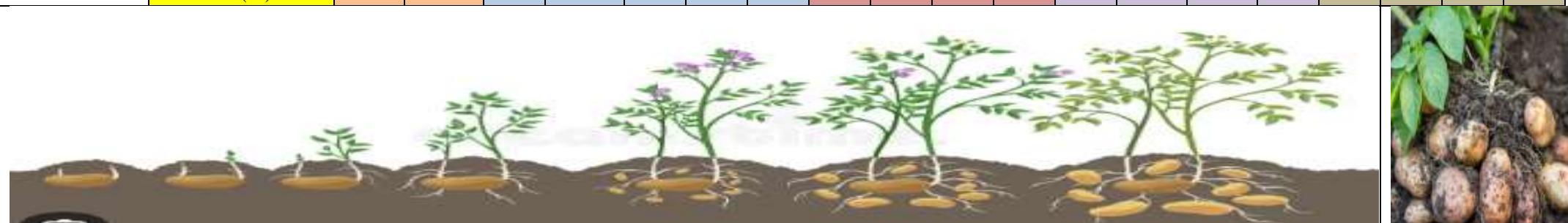
Climatic Normal	Crop-	Mustard		Duration – 125-130 (Days)																
	Month	October	November					December				January				February				
	Std. week	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9
	Tmax (°c)	29.2	28.8	28.5	27.3	26.6	25.9	24.9	23.5	22.6	22.1	21.3	20.8	21.0	21.4	22.6	23.7	24.7	25.9	26.7
	Tmin (°c)	18.7	17.7	16.5	15.4	13.9	12.7	11.9	10.9	10.1	9.2	9.0	8.4	8.7	9.1	9.8	10.9	11.8	12.7	13.7
	Rain(mm/week)	4.7	1.6	2.4	1.0	0.6	0.6	0.6	1.3	0.4	1.5	1.4	1.3	3.2	2.0	2.3	1.8	2.9	2.0	2.0
	RH(%)	72.3	71.4	70.3	71.0	70.4	69.9	70.6	72.1	72.8	72.5	73.8	74.0	73.9	73.7	72.4	71.6	71.1	70.0	69.7



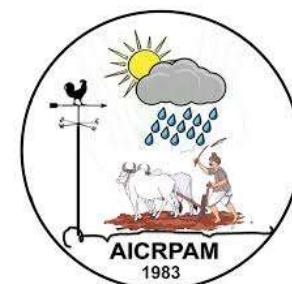
Phenophase wise weather for better yield	Sowing & emergence	Vegetative growth	Flowering	Siliqua formation	Seed development	Maturity
Tmax (°c)	24–28	22–26	20–24	20–25	24–28	28–30
Tmin (°c)	12–16	10–14	8–12	10–14	12–16	14–18
RHm(%)	70–80	65–75	60–70	60–70	55–65	50–60
RHe(%)	60–70	55–65	50–60	50–60	45–55	40–50
Rainfall (mm)	5–10	<10	<5	<10	Nil or <5	Nil
Congenial weather for pest/diseases	Seed rot, Damping off	Soil temperature > 25°C High soil moisture Poor drainage				
	Aphids, Alternaria leaf spot	Tmax: 22–26°C RH: 65–75% Moist, cloudy weather				
	White rust, Powdery mildew	Tmax: 20–24°C RH: 60–70% Cloudy with dew formation				
	Sclerotinia stem rot, Alternaria	Tmax: 20–25°C RH > 60% Cloudy spells or light drizzles				
	Pod borer, Late Alternaria blight	Tmax: 24–28°C RH: 55–65% Dry to moderately humid				
	Aspergillus, Storage fungi	Tmax: 28–30°C RH < 50% Fog or delayed harvest				

Crop-weather calendar of Potato (*Solanum tuberosum L.*)

Climatic Normal	Crop-Potato		Duration – 110-120 (Days)																	
	Month	October	November				December				January				February					
	Std. week	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9
	Tmax (°c)	29.2	28.8	28.5	27.3	26.6	25.9	24.9	23.5	22.6	22.1	21.3	20.8	21.0	21.4	22.6	23.7	24.7	25.9	26.7
	Tmin (°c)	18.7	17.7	16.5	15.4	13.9	12.7	11.9	10.9	10.1	9.2	9.0	8.4	8.7	9.1	9.8	10.9	11.8	12.7	13.7
	Rain(mm/week)	4.7	1.6	2.4	1.0	0.6	0.6	0.6	1.3	0.4	1.5	1.4	1.3	3.2	2.0	2.3	1.8	2.9	2.0	2.0
	RH(%)	72.3	71.4	70.3	71.0	70.4	69.9	70.6	72.1	72.8	72.5	73.8	74.0	73.9	73.7	72.4	71.6	71.1	70.0	69.7



Phenophase wise weather for better yield	Sowing & emergence	Vegetative growth	Flowering	Tuber Initiation	Tuber Bulking	Maturity
Tmax (°c)	24–28	20–26	20–25	18–22	20–24	24–28
Tmin (°c)	12–16	10–14	10–12	10–12	10–14	12–16
RHm(%)	75–85	80–90	80–85	85–90	80–85	65–75
RHe(%)	65–75	70–80	65–75	70–80	65–70	55–65
Rainfall (mm)	5–10	<10	<5	<10	<10	Nil or <5
Congenial weather for pest/diseases	Seed rot, Damping off	Soil temp: 24–28°C High soil moisture Poor drainage				
	Early blight, Cutworms, Aphids	Tmax: 20–26°C RH > 85% Cloudy & moist weather				
	Late blight, Whiteflies	Tmax: 20–25°C RH: 80–85% Dew or light drizzle				
	Late blight, Root-knot nematodes	Tmax: 18–22°C RH > 90% Overcast + drizzles				
	Rhizoctonia (black scurf), Aphids	Tmax: 20–24°C RH: 80–85% Intermittent irrigation				
	Soft rot, Dry rot (storage fungi)	Tmax: 24–28°C RH: 65–75% Dry, warm days				



Crop Weather Calendar of Kannauj District, Uttar Pradesh

Agro-climatic Zone

Middle Gangetic Plain
Region

Main Crops

Paddy, Wheat, Maize, Pulses,
Oilseeds (Mustard), Vegetables

Soil Type

Alluvial Soil (Sandy Loam to
Clayey Loam)



Developed by

Chandra Shekhar Azad University of Agriculture & Technology, Kanpur (U.P.)

Under Gramin Krishi Mausam Sewa (GKMS), AMFU Kanpur & AICRP on Agrometeorology

Crop-weather calendar of Rice (*Oryza Sativa L.*)

Crop-weather calendar of Wheat (*Triticum Aestivum*)

Crop-weather calendar of Mustard (*Brassica spp.*)

Climatic Normal	Crop-	Mustard		Duration – 125-130 (Days)																
	Month	October	November				December				January				February					
	Std. week	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9
	Tmax (°c)	32.1	31.3	30.3	29.2	28.0	27.0	25.9	24.2	23.1	21.7	20.0	20.7	20.8	22.3	23.5	24.3	25.8	27.6	28.4
	Tmin (°c)	17.9	16.6	15.4	14.3	12.7	11.6	10.5	9.8	8.7	7.9	7.8	7.5	8.0	8.4	9.3	10.3	11.4	12.3	13.2
	Rain(mm/week)	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.2	0.0	0.2	0.4	0.2	0.6	0.4	0.2	0.9	0.6	0.3	0.7
	RH(%)	60.2	59.9	60.5	61.5	62.0	63.2	64.4	67.9	69.0	71.7	76.4	73.9	74.5	71.0	69.0	68.6	66.6	62.8	62.2

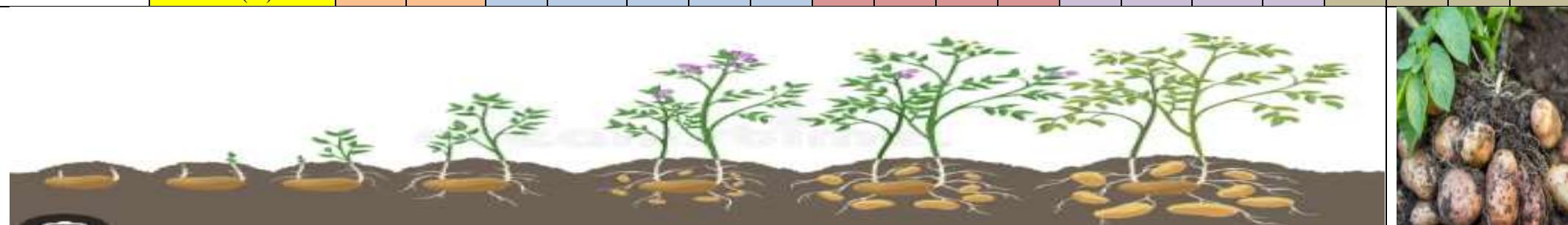


Phenophase wise weather for better yield	Sowing & emergence	Vegetative growth	Flowering	Siliqua formation	Seed development	Maturity
Tmax (°c)	25–30	20–25	18–22	20–24	22–26	26–30
Tmin (°c)	12–16	8–12	6–10	8–12	10–14	12–16
RHm(%)	65–70	70–75	75–80	70–75	65–70	55–60
RHe(%)	50–55	55–60	60–65	55–60	50–55	40–45
Rainfall (mm)	20–30	10–20	20–30	10–20	10–15	<10

Congenial weather for pest/diseases	Aphids (<i>Lipaphis erysimi</i>)	18–25 °C, RH 65–80%, cloudy & humid weather, dry spell after irrigation/rain
	Painted bug (<i>Bagrada hilaris</i>)	25–30 °C, low RH (<50%), bright sunny weather
	Mustard sawfly (<i>Athalia lugens proxima</i>)	20–28 °C, RH 65–75%, cloudy weather with light rains
	Leaf webber / Capsule borer	22–28 °C, RH 70–80%, cloudy & humid weather
	Alternaria blight (<i>Alternaria brassicae</i>)	18–22 °C, RH >90%, cloudy weather with intermittent rains/dew
	White rust (<i>Albugo candida</i>)	15–20 °C, RH >90%, cloudy & wet weather
	Downy mildew (<i>Peronospora parasitica</i>)	10–18 °C, RH >85%, cloudy & moist conditions
	Powdery mildew (<i>Erysiphe cruciferarum</i>)	18–25 °C, RH 60–70%, cloudy & dry weather
	Sclerotinia stem rot (<i>Sclerotinia sclerotiorum</i>)	15–20 °C, RH >90%, prolonged cloudy & wet conditions

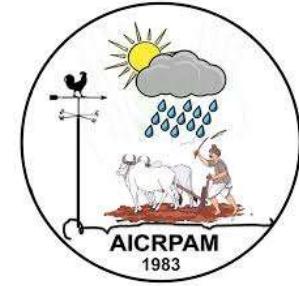
Crop-weather calendar of Potato (*Solanum tuberosum L.*)

Climatic Normal	Crop- Potato		Duration – 110-120 (Days)																	
	Month	October	November				December				January				February					
	Std. week	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9
	Tmax (°c)	32.1	31.3	30.3	29.2	28.0	27.0	25.9	24.2	23.1	21.7	20.0	20.7	20.8	22.3	23.5	24.3	25.8	27.6	28.4
	Tmin (°c)	17.9	16.6	15.4	14.3	12.7	11.6	10.5	9.8	8.7	7.9	7.8	7.5	8.0	8.4	9.3	10.3	11.4	12.3	13.2
	Rain(mm/week)	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.2	0.0	0.2	0.4	0.2	0.6	0.4	0.2	0.9	0.6	0.3	0.7
	RH(%)	60.2	59.9	60.5	61.5	62.0	63.2	64.4	67.9	69.0	71.7	76.4	73.9	74.5	71.0	69.0	68.6	66.6	62.8	62.2



Phenophase wise weather for better yield	Sowing & emergence	Vegetative growth	Flowering	Tuber Initiation	Tuber Bulking	Maturity
Tmax (°c)	25–30	20–24	18–22	16–20	18–22	22–26
Tmin (°c)	12–16	8–12	6–10	4–8	6–10	8–12
RHm(%)	65–70	70–75	75–80	80–85	75–80	65–70
RHe(%)	50–55	55–60	60–65	65–70	60–65	50–55
Rainfall (mm)	20–30	10–20	20–30	20–25	15–20	<10

Congenial weather for pest/diseases	Late blight (<i>Phytophthora infestans</i>)	10–20 °C, RH >90%, cloudy weather with continuous dew/fog or intermittent rains
	Early blight (<i>Alternaria solani</i>)	24–30 °C, RH 70–80%, intermittent dry & wet spells
	Black scurf (<i>Rhizoctonia solani</i>)	18–22 °C, moist soil, cloudy weather
	Common scab (<i>Streptomyces scabies</i>)	20–28 °C, dry soil with low moisture, alkaline soils
	Brown rot / Bacterial wilt (<i>Ralstonia solanacearum</i>)	25–30 °C, RH >80%, poorly drained soils, high rainfall
	Soft rot (<i>Erwinia spp.</i>)	20–28 °C, RH >85%, waterlogging + warm humid conditions
	Potato cyst nematode (<i>Globodera spp.</i>)	15–20 °C, moist soils
	Aphids (<i>Myzus persicae</i> , <i>Aphis gossypii</i>)	18–25 °C, RH 65–80%, cloudy & humid weather
	Whitefly (<i>Bemisia tabaci</i>)	25–30 °C, RH 50–60%, dry weather
	Cutworm / Armyworm	20–28 °C, RH 70–80%, cloudy weather with light rains



Crop Weather Calendar of Mainpuri District, Uttar Pradesh

Agro-climatic Zone

Middle Gangetic Plain Region

Main Crops

Paddy, Wheat, Maize, Pulses, Oilseeds (Mustard), Vegetables

Soil Type

Alluvial Soil (Sandy Loam to Clayey Loam)



Developed by

Chandra Shekhar Azad University of Agriculture & Technology, Kanpur (U.P.)

Under Gramin Krishi Mausam Sewa (GKMS), AMFU Kanpur & AICRP on Agrometeorology

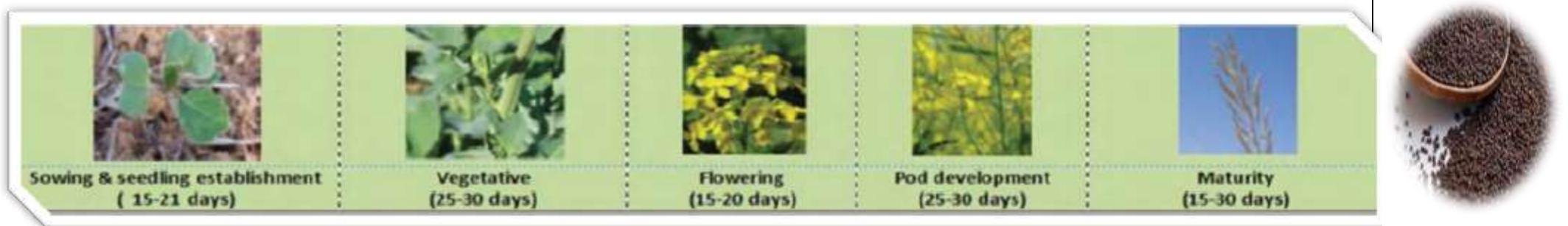
Crop-weather calendar of Rice (*Oryza Sativa L.*)

Crop-weather calendar of Wheat (*Triticum Aestivum*)

Climatic Normal	Crop- Wheat (Timely sown)												Duration – 125-130 (Days)																																																																																																																																																																																																																																																																																																														
	Month	November		December				January				February			March																																																																																																																																																																																																																																																																																																												
	Std. week	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13																																																																																																																																																																																																																																																																																																							
	Tmax (°c)	29.6	29.2	28.7	28.5	27.8	27.8	27.8	28.0	28.5	28.9	29.5	30.2	31.0	32.1	32.7	33.2	33.8	34.9	35.2																																																																																																																																																																																																																																																																																																							
	Tmin (°c)	18.1	16.7	16.2	16.1	15.1	14.7	14.8	15.0	15.3	15.9	16.3	17.2	18.0	18.7	19.3	20.4	21.1	21.9	22.9																																																																																																																																																																																																																																																																																																							
	Rain(mm/week)	0.7	0.1	0.4	0.2	0.8	0.1	0.1	0.4	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.6	0.6	0.4	0.8																																																																																																																																																																																																																																																																																																							
	RH(%)	70.6	68.6	68.5	68.6	68.0	67.2	67.5	67.4	67.0	67.4	67.0	67.5	67.7	67.1	67.0	68.2	68.6	68.2	69.6																																																																																																																																																																																																																																																																																																							
																																																																																																																																																																																																																																																																																																																											<img alt="Young plants" data-bbox="28365 2

Crop-weather calendar of Mustard (*Brassica* spp.)

Climatic Normal	Crop-	Mustard		Duration – 125-130 (Days)																
	Month	October	November					December				January				February				
	Std. week	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9
	Tmax (°c)	31.0	30.2	30.1	29.7	29.6	29.2	28.7	28.5	27.8	27.8	27.8	28.0	28.5	28.9	29.5	30.2	31.0	32.1	32.7
	Tmin (°c)	21.2	20.5	19.7	18.7	18.1	16.7	16.2	16.1	15.1	14.7	14.8	15.0	15.3	15.9	16.3	17.2	18.0	18.7	19.3
	Rain(mm/week)	3.2	2.2	1.5	1.1	0.7	0.1	0.4	0.2	0.8	0.1	0.1	0.4	0.1	0.2	0.2	0.2	0.3	0.3	0.3
	RH(%)	74.7	74.6	73.0	71.7	70.6	68.6	68.5	68.6	68.0	67.2	67.5	67.4	67.0	67.4	67.0	67.5	67.7	67.1	67.0

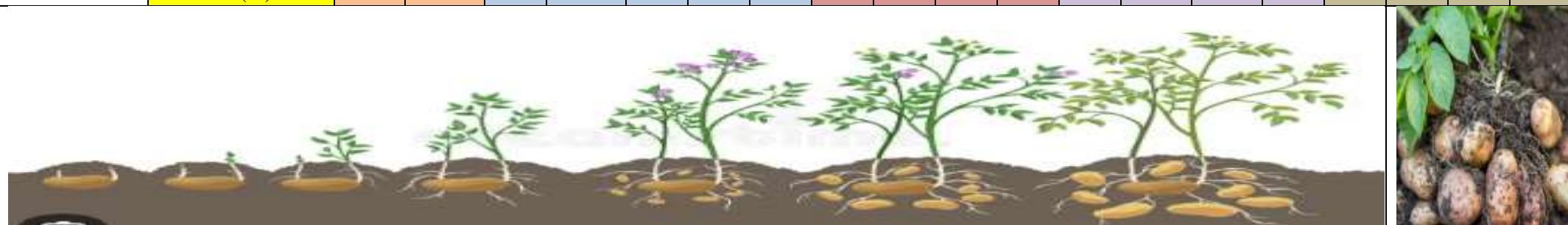


Phenophase wise weather for better yield	Sowing & emergence	Vegetative growth	Flowering	Siliqua formation	Seed development	Maturity
Tmax (°c)	22–25	18–22	16–20	18–22	22–26	28–32
Tmin (°c)	10–12	6–10	5–8	6–10	8–12	12–16
RHm(%)	70–80	70–75	75–85	65–75	60–70	55–60
RHe(%)	60–65	55–60	60–65	55–60	50–55	45–50
Rainfall (mm)	20–30	10–15	10–20	5–10	<10	Nil

Congenial weather for pest/diseases	Mustard aphid (<i>Lipaphis erysimi</i>)	18–25 °C, RH 65–80%, cloudy & humid weather, no rain
	Alternaria blight (<i>Alternaria brassicae</i>)	18–22 °C, RH >90%, frequent cloudy days with drizzles
	White rust (<i>Albugo candida</i>)	15–20 °C, RH 80–90%, cloudy with light showers
	Powdery mildew (<i>Erysiphe cruciferarum</i>)	20–25 °C, RH 60–70%, dry & cloudy weather, poor air circulation
	Downy mildew	15–22 °C, RH >85%, cloudy & wet conditions
	Painted bug (<i>Bagrada hilaris</i>)	28–32 °C, dry weather, low soil moisture
	Stem rot (<i>Sclerotinia sclerotiorum</i>)	18–22 °C, RH >90%, prolonged cloudy/rainy weather

Crop-weather calendar of Potato (*Solanum tuberosum L.*)

Climatic Normal	Crop-	Potato		Duration – 110-120 (Days)																
	Month	October		November				December				January				February				
	Std. week	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9
	Tmax (°c)	31.0	30.2	30.1	29.7	29.6	29.2	28.7	28.5	27.8	27.8	27.8	28.0	28.5	28.9	29.5	30.2	31.0	32.1	32.7
	Tmin (°c)	21.2	20.5	19.7	18.7	18.1	16.7	16.2	16.1	15.1	14.7	14.8	15.0	15.3	15.9	16.3	17.2	18.0	18.7	19.3
	Rain(mm/week)	3.2	2.2	1.5	1.1	0.7	0.1	0.4	0.2	0.8	0.1	0.1	0.4	0.1	0.2	0.2	0.2	0.3	0.3	0.3
	RH(%)	74.7	74.6	73.0	71.7	70.6	68.6	68.5	68.6	68.0	67.2	67.5	67.4	67.0	67.4	67.0	67.5	67.7	67.1	67.0



Phenophase wise weather for better yield	Sowing & emergence	Vegetative growth	Flowering	Tuber Initiation	Tuber Bulking	Maturity
Tmax (°c)	22–25	20–24	18–22	16–20	18–22	24–28
Tmin (°c)	12–15	10–12	8–10	7–9	8–10	10–12
RHm(%)	75–80	70–80	75–85	80–90	75–85	60–70
RHe(%)	60–65	60–65	65–70	65–70	60–65	50–55
Rainfall (mm)	20–30	10–20	10–15	10–20	<10	Nil

Congenial weather for pest/diseases	Late blight (<i>Phytophthora infestans</i>)	Tmax: 18–22 °C, Tmin: 7–10 °C – RH >90% – Continuous cloudy/rainy weather with dew
	Early blight (<i>Alternaria solani</i>)	24–28 °C – Moderate RH (70–80%) – Warm, humid conditions with intermittent rain
	Black scurf & stem canker (<i>Rhizoctonia solani</i>)	Cool (15–20 °C), moist soil – High soil moisture at planting
	Bacterial wilt (<i>Ralstonia solanacearum</i>)	28–32 °C – RH 80–90% – High rainfall & poorly drained soils
	Common scab (<i>Streptomyces scabies</i>)	20–25 °C – Dry soil with low moisture during tuber formation
	Potato virus diseases (PVY, PLRV)	15–25 °C – Spread favored by aphid activity in cool, humid weather
	Aphids (<i>Myzus persicae</i> , <i>Aphis gossypii</i>)	18–25 °C – RH 65–80% – Cloudy, humid weather
	Cutworms (<i>Agrotis spp.</i>)	20–28 °C – Dry weather followed by light rain
	White grub / Soil pests	Warm (25–30 °C), moist soil

Crop-weather calendar of Groundnut (*Arachis hypogaea* L.)

Crop-weather calendar of Groundnut (*Arachis hypogaea* L.)