





Crop Weather Calendar of AMFU Kanpur, Uttar Pradesh

Agro-climatic Zone

Main Crops

Soil Type

Middle Gangetic Plain Region Paddy, Wheat, Maize, Pulses, Oilseeds (Mustard), Vegetables Alluvial Soil (Sandy Loam to Clayey Loam)













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

	Cro	op-	R	Rice				Dura	ation	_]	120-1	35 (I	Days))								
	Month		J	lune				Ju	ly			A	ugus	st			Septe	mbei	r		Oct	ober	
Climatic	Std. week	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Normals	Tmax (°c)	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	33.7	35.4	31.7	31.4	31.5	30.4
	Tmin (⁰ c)	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	22.1	20.5	17.3	14.5	15.2	14.6
	RHm(%)	48	79	89	92	92	80	80	88	81	81	87	80	82	92	87	85	82	77	83	83	93	92
	RHe(%)	29	69	72	68	71	65	57	73	65	70	79	64	67	72	69	56	58	42	42	37	41	45
	SS (hr./day)	9.6	4.3	4.3	3.0	2.2	7.0	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	2.3	0.2
	Rain(mm/week)	0.0	128.6	106.8	40.6	47.4	65.0	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	0.0	0.0
Phenophase wise weather for better			S	owing			Т	ranspl	antin	g		Active	tilleri	ng)	Flowe	ring		Gr	ain fill	ing	Physiologic maturity	
yield	Tmax (⁰ c)		30	–35°C				28–	32°C			3	30–34°	°C		,	28–32°C	C	2	5–30°C	7	22–28	8°C
	Tmin (°c)		20	–25°C				22-	26°C			2	20–25°	°C		,	20–25°C	\overline{z}	1	8–22°C	7	18–20)°C
	RHm(%)		85	5–95%				85-	-95%		80–90%					80–90%			75–85%			70–80%	
	RHe(%)		70)–80%				70-	-80%			(65–75	%			65–75%	,)	6	0-70%		55-65%	
	SS (hr./day)		6–7	hrs/day	у			4–5 ł	nrs/day	7		5-	-6 hrs/	day		6-	-7 hrs/d	ay	7–3	8 hrs/da	ay	8–9 hrs	s/day
	Rainfall (mm)		6–7 hrs/day 30–50 mm					40–6	60 mm			4(0–60 n	nm		3	0–50 m	m	20	0–30 mm		<10 r (dry harve	for
Congenial	Stem borer															e initiat	tion (Ti	llering	to Boo	ting stag	ge)		
weather for	Gundhi bug	Tn	nax: 25-	-30°C -	75% - Dry, cloudy weather with little rain (Flowering to dough stage)																		
pest/diseases	Leaf roller	Tn	nax: 30-	-35°C -	High	RH (>	(>85%) - Cloudy, humid weather (Tillering to early panicle emergence)																
	Sheath blight (Rhizoctonia solani	Tn	nin: 20–	25°C - 1	RH: >	90% -	00% - Continuous cloudy/rainy days - Poor air circulation (Tillering to heading)																

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

	Crop- Wheat (Timely	sown)		Du	ration	1 –	125	-130 (Days)									
Climatic	Month	Nove	ember		Decer	nber			Janu	ary		-	Febru	ary			Mar	ch		
Normals	Std. week	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13
	Tmax (°c)	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	26.4	30.0	30.8	35.8
	Tmin (°c)	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	10.8	13.3	14.0	20.0
	RHm(%)	94	94	92	94	90	95	95	96	92	95	92	88	92	87	83	73	78	75	67
	RHe(%)	54	61	65	46	47	69	81	72	77	63	55	54	48	45	51	40	36	37	31
	Rain(mm/week)	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	0.0	0.0	0.0	0.0
				WI VIV						1			4	-	1		New			
Phenophase wise weather for better yield	Sowing & emerg	gence	Emo	ergence	Till	ering t	o head	ling	Н	_	to gra	iin	for	Grain mation naturit			ysiolog Maturi	_		
Tmax (°c)	24–28°C			20–2:	5°C		20–25°C				22–26°C				25–30°C			28-32°C		С
Tmin (°c)	12–16°C			10–1:	5°C			8–1	4°C			10-	15°C			12–18°C	7		14-20°	С
RHm(%)	80–90%			75–8	5%			70–2	80%			65–	75%			60–70%			50-609	6
RHe(%)	60–70%			55–6	5%			50-6	50%			45–	55%			40–50%			30–409	6
Rainfall (mm)	10–15 mm			5–10	5–10 mm				<10 mm <10					<10 mm <5 mm (minimal)				Nil (dry wear harvest	
Congenial	Yellow Rust (Puccinia striifor	mis)		ax: 10–20°C - Tmin: 7–10°C - High RH >85% - Prolonged dew/fog, cloudy w									`					(Dec-F	eb))	
weather for pest/diseases	Brown Rust (Puccinia tritici			nax: 20–25°C - RH: 60–70% - Clear, warm days followed by cool nights - Light dew (Tillering to grain filling stage)																
	Loose smut (Ustilago tritic		-	Temp: 18–24°C - High soil and air moisture during flowering - Infected seed is material temperature.									or sourc	e Infecti	ion at fl o	owering	stage; s	sympton	ns appea	r at ear

Crop-weather calendar of Mustard (Brassica spp.)

	Crop-	Musta	rd		Γ	Durati	on –	12	25-13	0 (D a	ys)									
Climatic	Month	Oct	ober		No	vemb	er		Dece	mbei	r			Janua	ıry			Feb	uary	
Normals	Std. week	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9
	$Tmax (^{0}c)$	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 (⁰ 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
	eedling establishmer 15-21 days)	it .	Ve (25		Flowering (15-20 days)				Pod development (25-30 days)			Maturity (15-30 days)					
Phenophase	Vegetative growth				Flowering				Siliqua form			rmation Seed de			nent	ľ	Maturi	ity		
wise weather	Sowing & emerg	gence	vege	tutive		25–30°C		20–25°C			18-24									
wise weather for better yield Tmax (0 c)	Sowing & emerg	gence	vege					20–25°	°C			18–24	°C		20-	–25°C			25–30°	С
wise weather for better yield		gence	vege		°C			20–25° 8–12°				18–24 8–10°				-25°C -15°C			25–30° 12–18°	
wise weather for better yield Tmax (°c)	30–35°C	gence	vege	25–30°	°C				С				C		10-					С

for better yield	Sowing & emergence	vegetative growin	Flowering	Sinqua 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 (⁰ 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													
Congenial	Aphids (Lipaphis erysimi)	Tmax: 20–25°C - RH: 70–80% - Cloudy weather with light drizzle (Flowering to seed formation)													
weather for pest/diseases	White Rust (Albugo candida)	Tmin: 10–15°C - RH: >90%	- Frequent dew/fog, wet leav	es (Flowering to pod formati	on)										
	Downy Mildew	Cool, moist conditions - RH >85% - Intermittent light rains (Vegetative to early flowering)													
	Alternaria Blight (A. brassicae)	Tmax: 20–28°C - RH >85% - Prolonged cloudy weather (Pod formation to maturity)													

Crop-weather calendar of Maize (Zea Mays)

	Crop- M	Aaize (Za	aid)			I	Dura	ition –		110-1	120 (D	ays)								
Climatic Normals	Month	Febru	uary			Marc l	<mark>h</mark>			A	pril			Ma	ay			Jı	une	
11011111111	Std. week	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
'	Tmax (⁰ 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		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
l'	RHe(%)	45	51	40	36	37	31	20	28	21	18	16	39	20	33	19	21	17	39	74
						2007	でき	SW STANSON	(V.		14		1	1					I
Phenophase wise weather for better yield	Sowing to emergence		K	Knee h	eight				Tasseli	ing		S	Silk form	mation		C	Cob filling		•	ological turity
Tmax (⁰ c)	28–32°C			30–35					30–35°				30–34				28–32°C			–30°C
Tmin (°c)	15–20°C			18–22					20–24°				20–24				18–22°C		16–20°C	
RHm(%)	70–80%			65–75					60–709				60–70				55–65%			-60%
RHe(%)	50-60%			45–55	5%				40–509	%			40–50	0%			35–45%		30-	-40%
Rainfall (mm)	20–30 mm			15–25	mm				10–15 m	nm			10–15	mm			5–10 mm		<5 mm (dr	ry at harvest)
Congenial weather for	Stem Borer (Chilo partellus	us) 1	Tmax: 30–35°C - RH: 60–70% - Intermittent showers + cloudy days (Early vegetative to tasseling)																	
pest/	Fall Armywori (Spodoptera frugip	iperda) 1	Tmax: 28–34°C - RH: 60–80% - Bright, dry days followed by rain (Emergence to cob formation)																	
diseases	Turcicum Leaf Bl (Exserohilum turci	cicum)	Tmax: 20–30°C - High humidity >90% - Frequent dew/fog (Vegetative to reproductive)																	
<u>'</u>	Maydis Leaf Bli (Bipolaris mayd	vdis)	Warm and																	
·	Downy Mildey	w F	RH >90% - Low temperatures (18–22°C) - Prolonged dew (Young seedling stage)																	

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

		Crop- Chickpea (Timely sown) Duration -130-140 (Days) November December January February																			
Climatic	Month		Novemb	er		Dece	mber			Januar	y			Febru	ary			Mar	ch		
Normals	Std. week	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11
	Tmax (°c)	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	26.4	30.0
	Tmin (⁰ c)	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	10.8	13.3
	RHm(%)	93	92	93	94	94	92	94	90	95	95	96	92	95	92	88	92	87	83	73	78
	RHe(%)	41	45	62	54	61	65	46	47	69	81	72	77	63	55	54	48	45	51	40	36
	Rain(mm/week)	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	0.0	0.0
											l.	//									
Phenophase wise weather for better yield	Sowing & emergence	Veg	getative G	Frowth			Pod	Forma	ition			Pod I	Filling		Phys	iologic	al Mat	urity			
Tmax (°c)	25-30°C		22–28°	С			2	0–25°C	C		20–25°C			25–30°C			30°C				
Tmin (°c)	10–15°C		10–15°	С		10-1	l2°C		8–12°C					8–12°C					10-1	15°C	
RHm(%)	80–90%		70–80%	6		60–′	70%			6	50-70%	ó			55-	65%			50-	60%	
RHe(%)	50–60%		45–55%	6		40–3	50%			4	10–50%	, D			35-	45%			30–	40%	
Rainfall (mm)	20–30 mm/week		5–25 mm/		<10	<10 mm/week (too much rain causes disease) Minimal (only light irrigation if needed)															
	Fusarium Wilt	Soil te	emperatu	re: 20–25	°C - D ry	y soil , lo	ow soil	moistur	e - Poo	r draina	age (Ea	arly ve	getativ	e to flo	wering	g stage))				
Congenial weather for pest/diseases	Pod Borer (Helicoverpa armigera)	Tmax	: 25–30°C	C - Low to	moderat	te rainfa	ıll - RH	: 40–60	% - Bri	ght Flo	owering	g to po	d deve	lopmer	nt stage	(60–1	10 DA	S)sunn	y days		
	Grey Mould (Botrytis cinerea)	Tmin:	12–20°C	- RH: >90	>90% - Cloudy, foggy, drizzly weather - Dense canopy (Flowering to pod filling stage)																

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

	Crop-	Potato							D	urati	ion –	1	10-12	0 (Day	ys)					
Climatic Normals	Month	Oct	ober		No	vemb	er		Dece	mber	r			Janua	ary			Febr	ruary	,
Normais	Std. week	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9
	$Tmax (^{0}c)$	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 (⁰ 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 & emer	gence	Vege	etative	growth		F.	loweri	ing		Siliq	ua for	mation	n	Seed de	velopi	ment	N.	Matur	ity
Tmax (°c)	20–25°C			20–25	°C			18–22°	C			18–22	°C		20-	–25°C			20–25°	°C
Tmin (°c)	10–15°C			12–16	°C			10–14°	C			10–14	°C		12-	-16°C			10–15°	°C
RHm(%)	85–90%			80–90	%			85–959	%			80–90	1%		75	-85%			85–90	%
RHe(%)	60–70%			60–70	%			65–759	%			60–70	%		55	-65%			60–70	%
Rainfall (mm)	15–25 mm		10–20 mm 5–15 mm 5–10 mm < 5 mm (dry period needed)											5–25 n	nm					
Congenial	Late Blight (Phytophthora inf	estans)	Tmax: 18–22°C - RH: >90% - Cloudy, humid, and rainy weather (Tuber initiation to bulking)																	
weather for pest/diseases	Early Bligh (Alternaria sol		Tmax: 25–30°C - RH: 70–80% - Intermittent dry and wet spells (Vegetative to maturity)																	
Post discuses	Aphids		Tmax: 20–28°C - RH: 70–85% - Dry, warm weather with tender foliage (Vegetative to flowering)																	
	White Grubs Cutworms		Tmax: 20–28°C - RH: 70–85% - Dry, warm weather with tender forage (vegetative to flowering) Tmax: 25–30°C - Soil moisture > field capacity - Cloudy, wet conditions (Sowing to emergence)																	