ISB No.978-81-904360-8-3

AICRPAM Tech. Bul.No.2/2009

Weather based decisions for growing kharif sorghum in Telangana region of Andhra Pradesh - A Practical Manual

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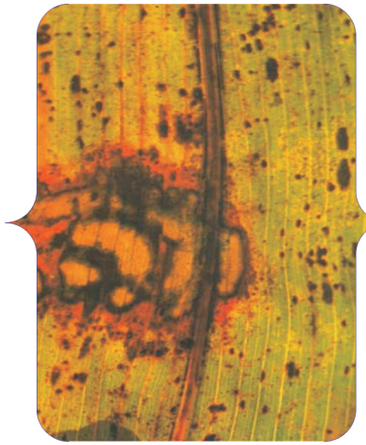
Sorghum Diseases

(a)

(b)

(c)

(d)



(e)

(f)

(g)

(a) Downey mildew
(b) Leaf blight
(c) Anthracnose
(d) Ergot
(e) Cercospora leaf spot
(f) Charcoal rot
(g) Zonate leaf spot

Sorghum Pests

(a)

(b)

(c)

(d)

(e)

(f)

(g)

(a) Stem borer - Larva
(b) Stem borer - Shot holes
(c) Stem borer - Early dead heart formation
(d) Shoot fly - Dead hearts
(e) Shoot fly - Dead hearts
(f) Shoot fly - Stunted plant
(g) Aphids

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Citation : G.G.S.N. Rao, B.V. Ramana Rao, M.S. Rao, G. Ravindra Chary, V.U.M. Rao, S. Desai, A.V.M.S. Rao and B. Venkateswarlu. 2009. Weather-based Decisions for Growing Kharif Sorghum in Telangana Region of Andhra Pradesh - A Practical Manual. AICRPAM Tech. Bul.No.2/2009. AICRP on Agro meteorology, Central Research Institute for Dryland Agriculture (CRIDA), Hyderabad. 42 p.

2009

ISBN : 978-81-904360-8-3

Published by

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Printed at: **Balaji Scan Pvt. Ltd.**
Lakadikapul, Hyderabad - 500 004
Tel : +91-40-23303424 /25, 66107719, 65223255

Preface

Weather plays an important role in controlling the agricultural crop production especially under rainfed conditions. The agricultural production in India is predominantly influenced by southwest monsoon rainfall. And any variability of rainfall both in space and time can effect in the production considerably. Therefore, it has been felt necessary to plan the agricultural operations matching to the occurrence of various meteorological parameters at different crop growth stages. The All India Coordinated Research Project on Agrometeorology has been entrusted with the responsibility of developing weather based agricultural operations for the crops grown under different weather situations. In the recently held, X biennial workshop of ACIRP on Agrometeorology held at BCKVV, Mohanpur December 2008, it was decided to bring out crop wise manuals for important crops grown under different climatic conditions across the country. As a follow up of the recommendations, an attempt has been made to bring out this publication which can provide "Weather based decisions for growing *kharif* sorghum in Telangana region of Andhra Pradesh". It is hoped that the contents in the form of advisories of this technical bulletin is useful in improving agro advisory services of Telangana region in stabilizing the productivity of sorghum crop and also this would help in preparing similar publications for other crops by the various centres of AICRP on Agrometeorology.

We express our sincere gratitude to Dr. A.K. Singh, DDG (NRM), ICAR New Delhi, for his constant guidance and encouragement and Dr. A.K. Gogoi, ADG (Agro), for his valuable suggestions and help.

The help rendered by the staff members of AICRP on Agrometeorology is duly acknowledged.

Authors

Summary

Sorghum (*Sorghum bicolor* L) is an important staple cereal crop grown mostly under rainfed conditions in Telangana region of Andhra Pradesh. The available information on crop production and protection is compiled to develop the guidelines for effective management of crop under different weather situations. In this manual, an attempt is made to bring all possible agricultural operations including plant protection measures for the crop grown under different dates of sowing during *kharif* season in Telangana region of Andhra Pradesh. This manual contains information on a brief about sorghum crop production variability in Telangana region, phenology, agronomic practices and the Agrometeorology of *kharif* sorghum with detailed information on agromet advisories, weekly normals of weather variables etc. Detailed weekwise information for 22-40 MSW is given on the actions to be taken for various rainfall, humidity and other weather parameters under normal and late sown conditions. Further, the farming community can be sensitized to take timely operations for efficient climate management and improve the crop productivity. Also these guidelines can be used by local extension personnel for wider reach and practice and can develop in preparing similar publications for important other crops grown in various agroclimatic zones of the country.

Points to follow

1. Selection of good quality seed
2. Ensure enough soil moisture during major crop operations
3. Maintain optimum plant population
4. Follow recommended method of sowing
5. Seed treatment is obligatory
6. Sowing should be done across the slope
7. Regular monitoring of the crop
8. Spraying should be done during cool hours of the day
9. Drain out the excess water in black soils
10. Optimum quality of spray liquid is 500-700 litre/ha
11. From 6 DAS possibility of lodging of the plants may occur in the event of heavy rainfall. Hence timely earthing up of plants or tieing of plants should be done
12. Bird scaring should be done till the produce is shifted to safer place.

Contents

भाकृअनुप
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Introduction

Sorghum is a staple cereal diet of 250 million people residing in the semi-arid zones of Peninsular and Central India. It is preferred by rural population in South India for its sumptuousness and nutrition quality (Hunsigi and Krishna, 1998) and also provides fodder to the livestock in the dry areas. The crop grown during southwest monsoon season (June-September), popularly known as *Kharif* sorghum and the crop grown during post-monsoon season under conserved moisture conditions is known as *rabi* sorghum. As the crop is predominantly grown under rainfed conditions, it is subjected to both biotic and aboitic stresses which are largely influenced by the weather.

The crop is grown in *kharif* season (2006-07) in about 0.163 m ha in Andhra Pradesh with a production of about 0.164 mt at an average productivity of about 989 kg/ha. Out of this Telangana region covers in about 0.130 m ha with production of about 0.138 mt and productivity of 1025 kg/ha. The area, production and productivity of kharif Sorghum in different districts of Telangana region are given in Table 1.

Table 1. Distribution area, production and productivity of *kharif* sorghum in Telangana region, Andhra Pradesh (2006-07).

District	Area ('000 ha)	Production ('000 tons)	Yield (Kg/ha)
Adilabad	20	31	1514
Mahbubnagar	58	47	815
Medak	26	23	865
Nalgonda	3	1	244
Nizamabad	2	2	1125
Ranga Reddy	21	34	1588
Total (Telangana)	130	138	1025

(Source : Directorate of Economics & Statistics, AP: Hyderabad)

Despite low productivity coupled with poor natural resource base, the farmers prefer to grow sorghum due to its adaptive nature for different levels of stresses both biotic and abiotic. Wider availability of local and improved germplasm for different agroclimatic conditions finds favour with the farmer for its cultivation. The major constraints for *kharif* sorghum production in Telangana region are as follows.

Weather :
- Uneven rainfall distribution and prolonged dryspells during growing season.
- Cloudy weather coupled with high relative humidity during Southwest monsoon season (June –September) promoting incidence and spread of pests and diseases.

Soil :
- Poor soil fertility with multiple nutrient deficiencies.
- Low water holding capacity of shallow to medium deep Entisols/Alfisols.
- Workability and poor drainage conditions in Vertic inceptisols/ Vertisols.

Weeds :
- Striga and other obnoxious weeds (grasses etc).

Pests :

- Shootfly (*Atherigona soccata*) (up to 30 days after sowing).
- Stem borer (*Chilo partellus*), (can occur sporadically after 30 days of sowing of the crop till its physiological maturity).
- Midge (*Contarinia sorghicola*) (Flowering to grain formation stages).
- Aphids (*Rhopalosiphum maidis)* (during late vegetative phase).

Diseases :

- Grain mold (*Gibberella thapsina*) (Flowering and grain development stage).
- Ergot (*Sphacelia sorghi* McRae) (Flowering and earhead development periods) – critical phenophase – anthesis time.
- Smut (*Sporisorium sorghi*) (During grain development stage) – during flowering and grain development.

Agronomic Practices Recommended for Telangana Region

Sorghum in this region is predominantly grown in medium to deep black soils and light textured red soils. Land preparation for *kharif* sorghum is initiated with deep ploughing and discing which is done with the receipt of pre-monsoon showers of May and June. Normally sowing is done on flat bed system or on ridges of 25-75 cm width made with cutlivator or ridger. Recommended seed rate is 3-4 kg/acre or 7.5 to 10 kg/ha. Before sowing, seed is treated with Captan and Thiram @ 3g/kg of seed. Suggested spacing is 45cm between the rows and 12 to 15 cm in between plants. The recommended plant population is 1,45, 000 to 1,18, 000 plants/ha. Sowing should be done on contour lines across the slope. Take up first intercultural operations at 21 days after sowing (DAS) and second intercultural operations at 30-35 DAS.

Apply 4 t of FYM/ha after seed bed preparation and thoroughly mix in the soil. In irrigated sorghum, the recommended dose of N, P and K is 75-100 Kg/ha, 60 Kg/ha and 40 Kg/ha, respectively. In case of rainfed conditions, the recommended dose is 60 to 80 kg N/ha, 40 Kg P/ha and 30 kg kg/ha. Nitrogen is applied in two split doses, *viz*., 50 percent as basal at the time of sowing and remaining 50 percent is applied at knee hight stage of the crop. Full dose of P & K is applied a basal. Under rainfed conditions, normally irrigation is not given to sorghum crop. Weeding is done at 30 days after sowing either with bullock drawn *Guntaka* and *Danti*. Thinning is done within two weeks after sowing. Popular sorghum based cropping systems. Generally, sorghum is grown as sole crop during *kharif*. However, sorghum + pigeonpea (2:1) is also a popular intercropping system in the region. The following varieties of sorghum are generally grown in Telangana region (Table 2).

Table 2. Popular varieties / hybrids of sorghum grown in Telangana region.

Hybrid	Season	Duration (Days)	Yield (q/ac)	Characters
CSH-5	All	105-110	14-16	Tolerant to moulds
CSH-9	*kharif*	105-110	16-18	Tolerant to moulds
CSH-13	*kharif*	110-115	12-14	Tall, more stover yield
CSH-16	*kharif*	105-110	15-17	Tolerant to moulds and leaf spot
PSV-1	*Kharif /rabi*	105-110	10-12	Good quality stover
PSV-15	*kharif*	110	10-12	Good quality stover
Palem-2	*kharif*	105-110	11-12	Tolerant to mould
CSV15	*kharif*	110	10-12	

Agrometeorology of *kharif* Sorghum

In Telangana region of Andhra Pradesh, there are three distinct agroclimatic zones, *i.e*., Northern Telangana Zone (Adilabad, Nizamabad, Karimnagar), Central Telangana Zone (Medak, Warangal, Khammam) and Southern Telangana Zone (Ranga Reddy, Hyderabad, Nalgonda, Mahabubnagar) (Fig.1). The distribution of normal monthly rainfall for representative stations in the three regions is shown in Fig. 2a. The northern Telangana region receives comparatively more rainfall during the southwest monsoon season. Contrasting differences in thermal regime are not seen during the *kharif* season across Telangana (Fig.2b). Cloudy conditions coupled with high relative humidity prevail more frequently during the crop-growing season in northern Telangana region compared to southern Telangana region (Fig. 2c. and d).

The land preparation for cultivation of sorghum is usually carried out utilizing the pre-monsoon showers received during the month of May or early June. The crop is usually sown either with the onset of the southwest monsoon rains or pre-monsoon showers that occur prior to the onset of the monsoon after land preparations usually coinciding with the standard meteorological weeks starting from 22 to 25th week. Farmers usually start sowing the crop with the receipt of 15mm or more rain in one or two days in lighter soils and with the receipt of 30mm or more rainfall in black soils. After emergence of the seedlings, the farmers experience the problem of shoot fly incidence, which might continue for 4 to 5 weeks after sowing. If there is adequate soil moisture four to five weeks after sowing, farmers apply second dose of nitrogen fertilizer. There is a possibility of stem borer attack when the crop is in grand growth stage may continue till grain hardening stage. Farmers also notice Striga weed infestation during late vegetative growth period.

The *kharif* sorghum crop is susceptible to mites, ergot, smut and grain mould. Ergot disease is predominant under cool, cloudy (more than 6 octa) and humid (afternoon humidity more than 80 percent) conditions when the crop is in flowering and grain hardening stages. There are some varieties like CSH-5, which are comparatively less susceptible to ergot disease.

In general, if the rainfall is well distributed interspersed with moderately cool and dry weather and adequate soil moisture can lead to better quality of grain and fodder as well as high productivity. If there are continuous rains associated with cloudy and humid conditions during grain formation and development period, the productivity as well as quality of grain and fodder is likely to be adversely affected. Whenever the grains in the lower part of the earhead are whitish and hard, the crop can be harvested. The harvest of the crop usually coincides with the cessation of the southwest monsoon rainfall. The mean temperature during the season fluctuates between 27°C to 35°C. Early planting provides favourable crop growing situation by avoiding pests and diseases to large extent.

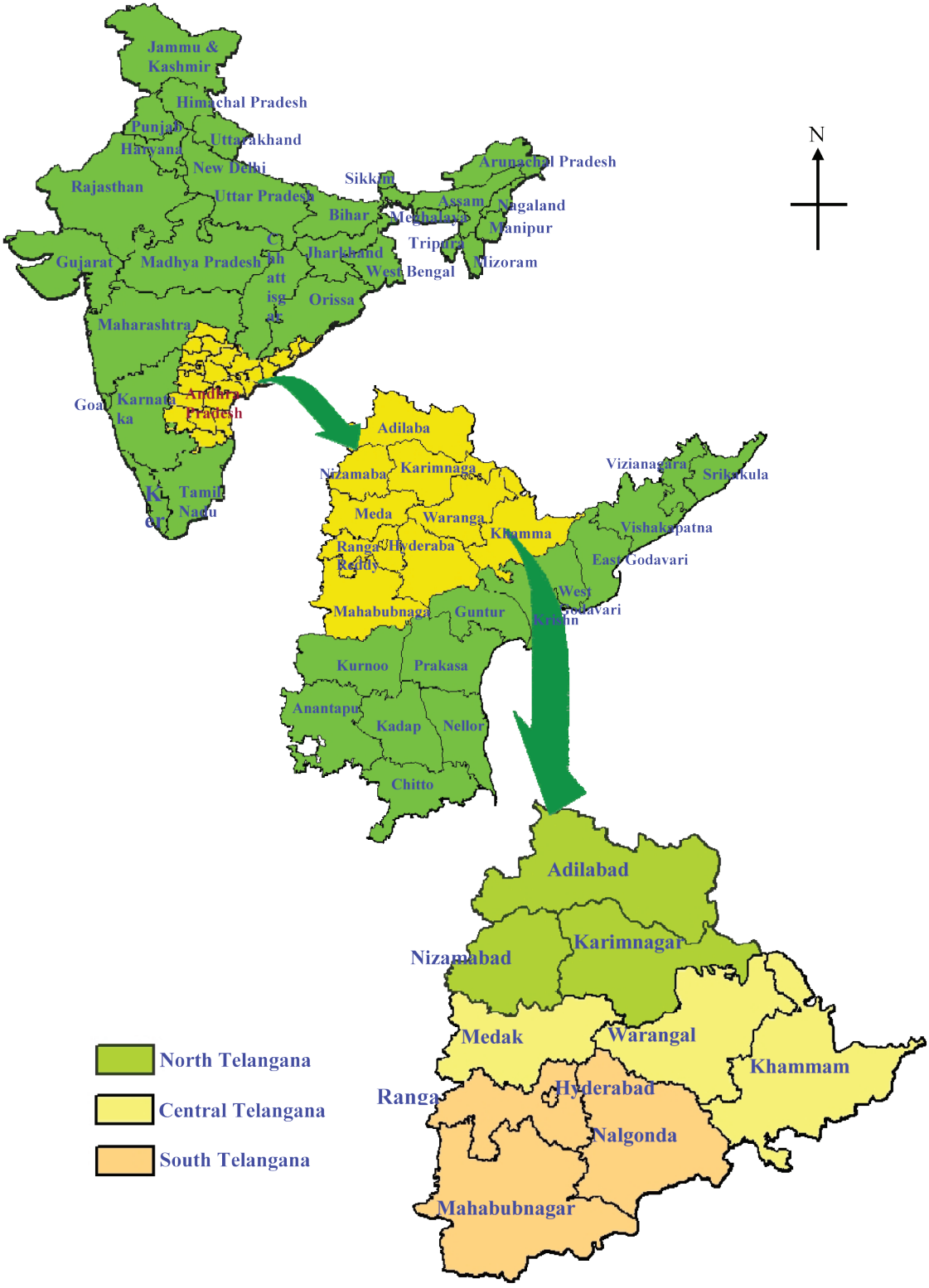
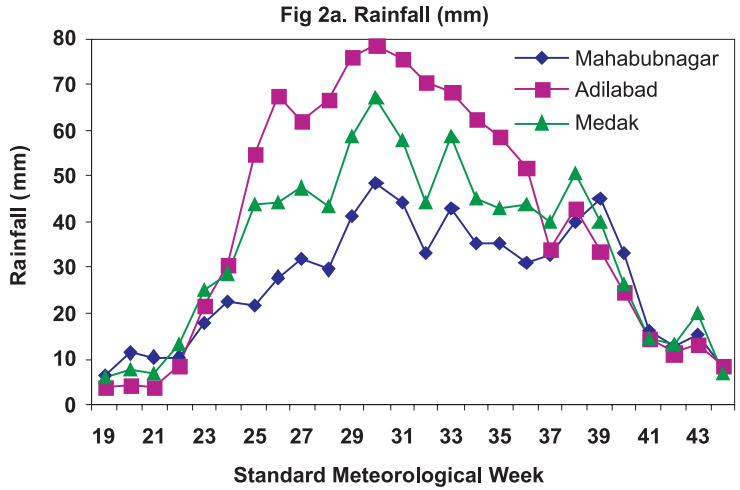
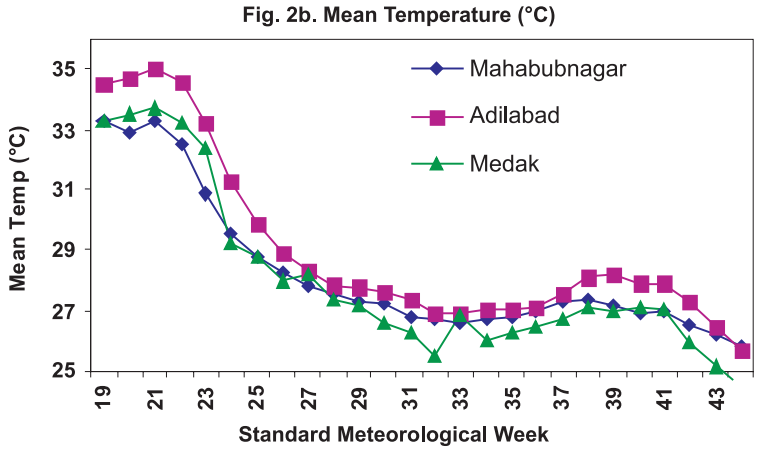
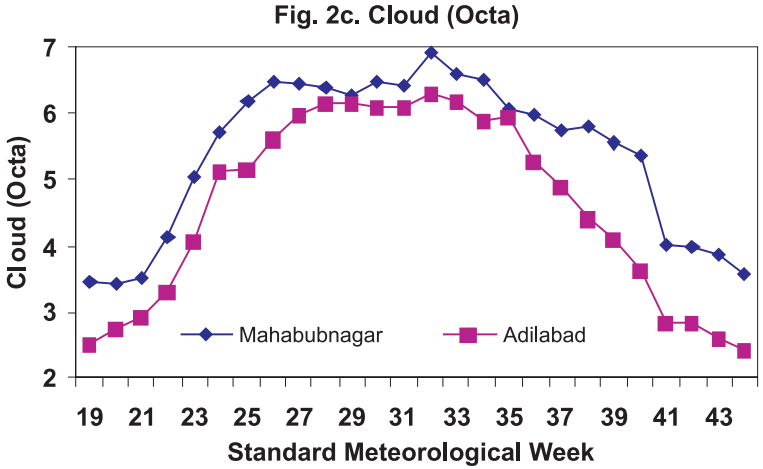


Fig.1 Location map of Telangana region of Andhra Pradesh







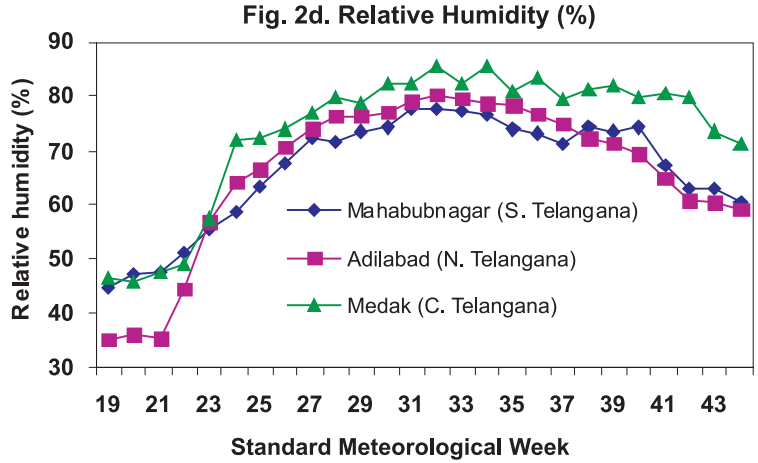


Fig. 2a, b, c & d. Weekly climatic nomals of rainfall, mean temperature, cloud amount and relative humidity for the period 19-34th standard meteorolog ical week at selected stations in different zones in Telangana region.

Opportunities for Enhancing Productivity

Despite availability of varieties/hybrids suitable for wide range of agro-climatic and adaptive environments of Telangana region and appropriate agronomic practices, the productivity is low. It may be due to inherent risk associated with weather during the cropping season in general and particularly during reproductive to physiological maturity stage. If the information is available on the weather conditions likely to prevail well in advance (3 to 5 days) in advance, the farmers will have enough time and option for overcoming adverse effects of weather and for taking appropriate corrective measures for maintaining crop yields..

Now, with the initiative taken by the Government of India and establishment of National Centre for Medium Range Weather Forecasting (NCMRWF), it will be possible to get fairly reliable weather forecasts three to five days in advance. In addition, the India Meteorological Department (IMD) is also actively considering the establishment of district level agromet centres for issuing weather forecasts and rendering agromet advisories. IMD has also started issuing district level weather forecasting. The information is likely to be disseminated at village level through wider application through information and communication technologies.

Keeping this in view, it is necessary to consolidate the available information on crop production and develop the guidelines for better crop management options based on weather forecasts so that the farming community can be sensitized to take timely action. Hence, an attempt is made to bring out a manual on guidelines for weather based agro advisories for sorghum crop grown in Telangana region during *kharif* season as an example so that similar efforts can be initiated in respect of different predominant crops for various agroclimatic regions.

Agromet Advisories

As *kharif* sorghum is sown from 22nd standard meteorological week (May 28-June 03) in Telangana region, the guidelines for agromet advisories are given from 22nd week onwards. *Kharif* sorghum varieties usually attain maturity 15 to 17 weeks after sowing depending upon the thermal regime and moisture availability. Sowing is usually taken up in 24th week in most of the areas in the region. Therefore, the guidelines for agromet advisories for three situations, *viz*., early sown (22nd), normal sown (23rd) and late sown (24th week) are given up to 40th standard meteorological week.

Weather

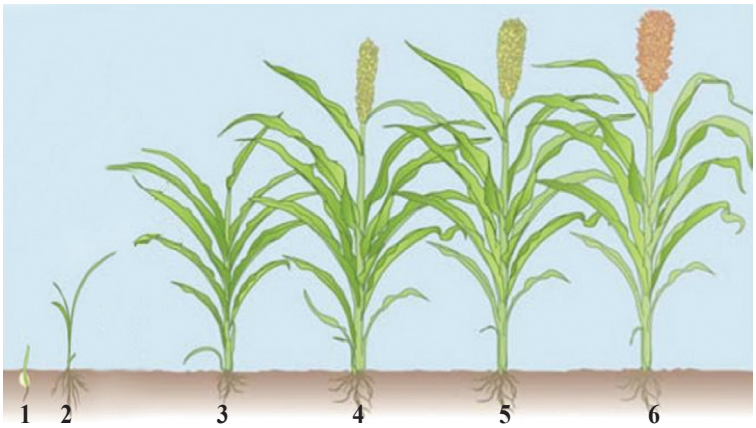
Initially, the normals of basic parameters like weekly rainfall (mm), daily maximum and minimum temperatures during the week (°C) and cloud cover (in octas). An octa represents one eighth of the sky or 0.125 fraction of the total sky. Averaged relative humidity measured both in the morning and afternoon is expressed as percentage. The normal conditions of weather will indicate about the anticipated weather conditions when no forecast is available. With the availability of the weather forecast, it can be guessed that the forecasts suggest,

- No, scanty (5 to 10 mm), normal as stated in the text or heavy rainfall (much above normal).
- Low to high relative humidity in the range of 40 to 85 per cent.
- Clear skies, partly cloudy skies and overcast skies with cloud amount ranging from 0 to 8 octas.

The occurrence of rains may be isolated in some areas when the monsoon activity is less and may be widespread when the monsoon is more active. Taking into consideration, four to six combinations, weather forecasts were identified and given for different meteorological weeks.

Crop Phenology

The phenology and the schematic diagram of the growth stages of sorghum crop are as follows.



Stages	Number of days from sowing	Phenological stage
1.	1-10	Germination stage
2.	10-15	Seedling stage
3.	15-55	Vegetative stage
4.	55-60	Boot leaf and flowering stage
5.	60-90	Earhead formation and grain development
6.	91-110	Physiological maturity

Stage 1 – Germination Stage

Germination occurs when the coleoptile is visible at the soil surface, and generally occurs 3 to 10 days after planting. During emergence, growth is dependent upon soil temperature and moisture, planting depth, and seed vigor. Disease organisms are favored by cool, wet conditions and such infestations would result in reduced stands. Therefore, planting should be timed so that germination and early plant growth occur during warm temperatures, and the reproductive phase will occur prior to the hottest part of the growing season.

Stage 2 – Seedling Stage

Seedling stage occurs when the collars of three leaves can be seen without dissecting the plant. This stage will occur approximately 10 days after emergence, with great dependence upon temperature. It is important that planting date is late enough to ensure that plants can grow rapidly at this stage. Slow growth and poor weed control during this stage can seriously reduce yields since the plant is small. Although sorghum does not recover as vigorously as corn, much of the leaf area can be removed since the growing point is below the soil surface.

Stage 3 - Vegetative Stage

This stage occurs when the collars of five leaves can be seen without dissecting the plant and occurs about 3 weeks after emergence. The root system develops rapidly at this stage. Dry matter accumulates at nearly a constant rate assuming growing conditions are satisfactory. During this stage the potential for the plant to develop is determined. Stresses from weed competition, nutrients, water, or insects can dramatically reduce yields if not corrected.

Stage 4 – Boot leaf and flowering Stage

This stage is defined as when half of the plants in a field are in some stage of bloom. Flowering progresses from tip of the head downward over a period of 4 to 9 days. At half-bloom nearly half of the total dry weight of the plant has been attained. This stage usually represents two-thirds of the time between planting and physiological maturity. Severe moisture stress can result in poor head filling. However, if environmental conditions are favorable, sorghum plant can compensate for limitation in plant size, leaf area, or plant numbers by increasing both seed number per head as well as seed weight.

Stage 5 – Earhead formation and Grain Development Stage

This stage usually represents two-thirds of the time between planting and physiological maturity. Severe moisture stress can result in poor head filling. However, if environmental conditions are favorable, the sorghum plant can compensate for limitation in plant size, leaf area, or plant numbers by increasing both seed number per head as well as seed weight. At this stage the grain has a dough-like consistency and grain fill is occurring rapidly. Approximately half of the seed dry weight is accumulated during this stage. Lower leaves continue to senesce with 8 to 12 leaves remaining at this stage.

Stage 6 - Physiological Maturity

Maximum total dry weight of the plant has occurred. This stage is determined by the dark spot seen on the opposite side of the kernel from the embryo. Grain moisture at physiological maturity depends on the hybrid, with typical moisture ranging from 25% to 35%. Hybrid and weather conditions affect the time between maturity and the harvest time.

Pests and Diseases

Incidence of several pests and diseases is noticed on sorghum crop. Shootfly (*Atherigona soccata*), stem borer (*Chilo partellus*), midge (*Contarinia sorghicola*) and earhead bug (*Calocoris angustatus*) are the important insect pests. Shootfly and stem borer attack the crop mostly during vegetative stage and other two pests are noticed during flowering to earhead formation. The formation of dead hearts (drying and death of apical meristem of the plant) is the clear indication in case of shootfly and stem borer attacks. But in case of shootlfy, incidence is noticed up to 4 weeks after sowing whereas incidence of stem borer is noticed during 3 weeks after sowing to earhead formation stage. In case of shootfly the 'dead hearts' can be pulled easily but in case of stem borer it is difficult to do. Midge and earhead bug suck the sap or juice during flowering and earhead formation affecting formation of grains and results in shriveled grain, which subsequently gets dried up. Among diseases, Grain mold (*Gibberella thapsina*) and Ergot (*Sphacelia sorghi* McRae) are important which cause significant yield losses and demands timely action.

Monitoring of pests and diseases at regular intervals is required to avoid yield losses. Scouting of the field to identify above insect pests and diseases is the primary requisite to plan the plant protection operations. Ten plants can be randomly selected in a 10 x 10 m area of the field and check for the above pests and diseases. If the damage is less than 5 percent or so, chemical control can be avoided. If it is more than 5 percent always, chemical control should be initiated. Advisories are incorporated accordingly.

Standard metereological week-wise Agromet advisories

All technological recommendations for each week from sowing to harvesting in the tables are compiled and given based on the documented information available from authentic sources. The objective of this publication is to give first hand information and to plan various crop operations well in advance. As recommendations are dynamic and not static in nature, there is an ample scope for refinement from time to time based on local/ regional experience.

Standard Meteorological Week: 22 (May 28-June 03)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	8.8	41.6	27.5	3.3	35.3
Mahabubnagar	10.6	38.8	26.3	4.1	51.3
Medak	13.0	39.9	26.6	-	49.1
Nalgonda	11.5	37.0	24.7	-	68.1
Ranga Reddy	11.7	39.8	26.9	4.5	50.0

Usually hot and dry weather conditions prevail during the week with isolated scattered thundershowers in some parts. However, rains adequate for sowing operations can be expected with a probability of 30 per cent either due to early onset of the southwest monsoon or widespread thunderstorm activity in the evenings.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
No crop	▫ No rainfall or scanty rainfall of less than 10 mm.	▫ Field preparations can be taken up.
	▫ If the rainfall received is more than 15 mm in one or two consecutive days.	▫ Sowing can be taken up on a pre-cultivated land with seed rate of 4 kg/acre after the seed treatment with Thiram or Captan 50WP @ 3 to 4 g/kg of seed. ▫ Sowing can be done at a spacing of 45 cm between rows and 12-15 cm within the row. ▫ Basal application of fertilizers, viz., 50% of recommended nitrogen (30-40 kg), and full dose of phosphorus (40 kg) and K (30 kg).
	▫ If the rainfall received is more than 30 mm in one or two days.	▫ Seed treatment can be done with Thiram or Captan 50WP @ 3-4 gm/kg of seed to control seed borne diseases. ▫ Complete land preparation for the remaining unsown area and takenup sowing immediately under dry weather conditions ▫ Seed treatment, spacing and method of sowing are as described earlier.

Standard Meteorological Week: 23 (June 04-June10)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	21.6	39.8	26.6	4.1	56.7
Mahabubnagar	17.9	36.6	25.1	5.0	55.5
Medak	25.2	38.3	26.4	-	57.5
Nalgonda	18.9	35.9	23.3	-	66.2
Ranga Reddy	16.6	37.8	25.8	5.3	57.8

Dry weather conditions can be generally expected to prevail. However, rainfall adequate for sowing purposes can be expected with 25 to 35 per cent probability during the week either due to early onset of southwest monsoon or due to local thundershowers.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of anticipated change in weather on the crop and management decision to be taken
Germinating stage (22 SMW sown crop)	▫ No rainfall or scanty rainfall of less than 10 mm.	▫ Monitor for germination percentage.
	▫ If the rainfall received is more than 15 mm in one or two consecutive days.	▫ Monitor for germination percentage. ▫ Gap filling can be done with same variety of sorghum.
	▫ If the rainfall received is more than 30 mm in one or two days.	▫ Gap filling can be taken up after a period of 12 to 24 hrs
	▫ No rainfall, Hot and dry winds during daytime.	▫ Monitor for germination percentage.
No crop	▫ No rainfall or scanty rainfall of less than 10 mm.	▫ Field preparation can be taken up if not carried out so far.
	▫ If the rainfall received is more than 15 mm in one or two consecutive days.	▫ Seed treatment, sowing, spacing and fertilizer application should be followed as described earlier.
	▫ If the rainfall received is more than 30 mm in one or two days.	▫ After gap of substantial dry period (12 to 24 hrs) sowing can be done as above.
	▫ No rainfall, hot and dry winds during daytime.	▫ Monitor for soil moisture condition.

Standard Meteorological Week: 24 (June 11-June 17)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	30.3	37.3	25.2	5.1	63.9
Mahabubnagar	22.4	34.7	24.5	5.7	58.6
Medak	28.6	34.5	24.0	-	72.3
Nalgonda	25.9	35.1	23.7	-	72.5
Ranga Reddy	25.8	35.1	24.8	6.8	61.7

The week coincides with the normal onset of southwest monsoon. Rainfall adequate for sowing operation can be expected with a probability of 40 to 60 per cent. If there is delay in the onset of monsoon, partly cloudy skies and dry weather conditions will prevail. Local thunderstorms may occur in some parts.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of anticipated change in weather on the crop and management decision to be taken
Young seedling stage (22 SMW sown crop)	Nil or scanty rainfall, clear sky, low humidity.	▫ Monitor for shootfly incidence.
	▫ If the rainfall received is more than 10 mm in one or two days.	▫ Attack of shootfly may occur. Scouting for drying of meristems of seedling (Dead hearts formation). Removal of seedlings affected with shootfly. If incidence is more, chemical control can be initiated. Application of carbofuran granules 3G @ 2 to 3 g/m row or Endosulfan 35 EL spray @ 2 ml/litre. ▫ Monitor for germination of seeds sown in the gaps.
	▫ If the rainfall received is more than 30 mm in one or two days.	▫ Monitor for germination of seeds sown in the gaps. ▫ Chemical control of shootfly as above.
	▫ No rainfall, cloudy weather (6 octas or more). High humidity (more than 75%)	▫ Monitor for shootfly incidence. ▫ Monitor for downy mildew and uproot seedlings infected by the pathogens.
	▫ Heavy rainfall followed by clear skies and high humidity (more than 75 percent).	▫ Monitor for damaged seedlings if any as possibility of soil erosion may occur and damage the seedlings.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of anticipated change in weather on the crop and management decision to be taken
Germinating stage (23 SMW sown crop)	▫ Nil or scanty rainfall clear sky, low humidity.	▫ Monitor for germination
	▫ If the rainfall received is more than 10 mm in one or two days.	▫ Monitor for germination percentage and gaps. ▫ Gap filling can be done with same variety of sorghum.
	▫ If the rainfall received is more than 30 mm in one or two days.	▫ Gap filling can be taken up after a dry period (12 to 24 hrs).
	▫ No rainfall, cloudy weather (6 octas or more) High humidity (more than 75%). Heavy rainfall followed by clear skies and High humidity (more than 75 percent).	▫ Monitor for shootfly incidence. ▫ Monitor for initiation of leaf blight, downy mildew.
No crop	▫ Nil or scanty rainfall clear sky, low humidity.	▫ Field preparation can be taken up in unsown fields.
	▫ If the rainfall received is more than 15 mm in one or two days.	▫ Seed treatment, sowing, spacing and fertilizer application should be followed as described earlier. Adoption of higher seed rate i.e. 6 kg/acre or 15kg/ha is recommended instead of 4 kg/acre or 10 kg/ha, as late sown crop is vulnerable to shootfly incidence.
	▫ If the rainfall received is more than 30 mm in one or two days	▫ After gap of dry period of 24 hrs sowing can be done as described earlier.
	▫ No rainfall, cloudy weather (6 octas or more). High humidity (more than 75%).	▫ Field preparation can be taken up in the remaining unsown fields.
	▫ Heavy rainfall followed by clear skies and High humidity (more than 75 percent).	▫ Sowing can be taken up under clear weather conditions.

Standard Meteorological Week: 25 (June18-June 24)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	54.9	35.2	24.6	5.2	66.4
Mahabubnagar	21.7	33.4	24.0	6.2	63.3
Medak	43.8	33.4	24.1	-	72.3
Nalgonda	26.3	32.7	22.9	-	79.9
Ranga Reddy	30.5	33.8	24.4	6.5	65.7

Under normal conditions, the southwest monsoon is expected to cover entire Telangana region by the end of this week even during the years with delay in the onset of the monsoon by 10 to 12 days. During 80 to 90 per cent of the years, the sowing of *kharif* sorghum is expected to be completed by this week. Dry weather conditions may occur during the years with early onset of monsoon due to break monsoon conditions.

Existing Crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Vegetative stage (22 SMW sown crop)	▫ Normal conditions prevail. ▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity. ▫ Scanty rain fall/intermittent cloudy weather/moderate humidity	▫ The incidence of stem borer may occur since two weeks after sowing till ear head formation. Scouting for stem borer incidence is required. The first indication that a plant is infested is the appearance of small-elongated windows in young whorl leaves where the larvae have eaten the upper surface of the leaf but have left the lower surface intact as a transparent window. Then the plant may become very ragged in appearance as the severity of stack increases. Subsequently larvae bore into the stem and shot holes appear in whorl leaves. ▫ The dead heart formation especially after three weeks after sowing is the clear indication of attack of stem borer. ▫ Application of granules, viz., Endosulfan 4G or Carbofuran 3G @ 5 kg/acre or 12.5 kg/ha at this stage (21 DAS).
	▫ Wide spread rains/cloudy sky/ high humidity.	▫ The chemical control of stem borer can be taken up during dry weather conditions. ▫ Zonate leafspot and anthracnose may appear in hybrids. Monitor crop and spraying with Chlorthalonil or Mancozeb 75WP @ 2 g/litre a.i. 2-3 times at 15 days interval depending on further disease spread. ▫ In seed production plots, if leaf blight is observed, follow the fungicide spray as given above.
	▫ Heavy rain followed by clear weather.	▫ In black soils drain out the water from the fields.

Existing Crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Young seedling stage (23 SMW sown crop)	▫ Normal conditions prevail.	▫ Attack of shootfly may occur and control can be done as above
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity	
	▫ Wide spread rains/cloudy sky/ High humidity.	▫ Monitor for damaged seedlings if any as possibility of soil erosion may occur and damage the seedlings.
	▫ Heavy rain followed by clear weather.	▫ After a dry period of 6 to 18 hrs the chemical control of shootfly can be taken up. ▫ Monitor for downy mildew.
Germinating stage (24 SMW sown crop)	▫ Normal conditions prevail. ▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity. ▫ Scanty rain fall/intermittent cloudy weather/ moderate humidity	▫ Monitor for germination percentage and gaps. ▫ Gap filling can be done with same variety of sorghum. ▫ Gap filling can be taken up during clear weather period on a pre-cultivated land.
	▫ Wide spread rains / cloudy sky / High humidity. ▫ Heavy rain followed by clear weather.	▫ After a gap of 6-12 hrs gap filling can be done. ▫ Avoid submergence of seedling by removing excess water from the fields.

Standard Meteorological Week: 26 (June 25-July 01)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	67.5	33.6	24.2	5.6	70.6
Mahabubnagar	27.7	32.6	23.8	6.5	67.6
Medak	44.3	32.1	23.9	-	73.9
Nalgonda	29.9	34.0	24.0	-	76.3
Ranga Reddy	37.1	33.3	24.3	6.8	68.7

The southwest monsoon is generally expected to be active in the entire region under normal conditions and at least 10 mm rainfall can be expected with a probability of 50 to 60 percent. Cloudy and humid conditions can also be anticipated during the week. Hot and dry weather may occur in association with break monsoon conditions in 20 to 25 per cent of the years.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Vegetative stage (22 SMW sown crop)	▫ Normal conditions prevail.	▫ Inter cultivation should be in between the rows done with country plough to remove weeds. Weeding within the row can also be done. Monitor for stem borer attack. ▫ The second dose of nitrogen can be applied to crop as top dressing @ 16 kg/acre or 40 kg/ha should be applied.
	▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity.	▫ Monitor for stem borer attack.
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity. ▫ Wide spread rains/cloudy sky/High humidity.	▫ Inter cultivation should be done as above. ▫ The second dose of Nitrogen can be applied to crop as top dressing @ 16 kg/acre or 40 kg/ha should be applied. The first dose of Nitrogen can be applied as above. Monitor for pest incidence. ▫ Monitor for rust incidence. If severity is more than 3 on 109 scales spray Mancozeb 75WP foliar application @ 2 g/ litre a.i. ▫ Monitor for anthracnose and zonate leafspot and leaf blight.
	▫ Heavy rain followed by clear weather.	▫ After a dry period of 6-12 hrs above operations (Inter cultivation and top dressing) can be done. In black soil areas, drain out the excess water from fields. ▫ Identify the incidence of striga weeds in the field. Striga weed is the most important noxious weed, which causes heavy yield loss. Spray of Ammonium sulphate @ 50 g or Urea @ 200 g/litre of water can control the striga infestation.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Young seedling stage (23 SMW sown crop)	▫ Normal conditions prevail.	▫ Attack of shootfly may occur and control can be done as suggested earlier.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity	
	▫ Wide spread rains/cloudy sky/High humidity.	▫ Monitor for damaged seedlings if any as possibility of soil erosion may occur and damage the seedlings. Proper earthing up may be taken up. ▫ After a dry period of 6 to 18 hrs the chemical control of stem borer can be taken up. ▫ Monitor for downy mildew. ▫ Remove excess water from black soils.
	▫ Heavy rain followed by clear weather.	
Germinating stage (24 SMW sown crop)	▫ Normal conditions prevail.	▫ Monitor for germination percentage. ▫ Identify the shootfly-affected seedlings. Formation of dead hearts is the clear indicator. The affected plants can be removed from the field manually as higher seed rate for sowing was taken up. Uniform plant population should be ensured.
	▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity	▫ Gap filling can be done with same variety of sorghum.
	▫ Wide spread rains/cloudy sky/High humidity.	▫ Gap filling can be taken up under dry weather conditions of 12 to 24 hrs.
	▫ Heavy rain followed by clear weather.	▫ In black soil areas, excess water may be drained out. ▫ Gap filling can be taken up under dry weather conditions of 24 to 36 hrs.

Standard Meteorological Week: 27 (July 02-July 08)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	62.1	32.6	24.1	6.0	73.8
Mahabubnagar	31.9	32.2	23.5	6.4	72.3
Medak	47.6	32.4	23.9	-	77.0
Nalgonda	27.1	34.1	23.7	-	78.7
Ranga Reddy	36.2	32.7	23.9	6.7	71.0

Warm, humid and cloudy conditions may occur in southern parts of Telangana and the rainfall is better assured in the central and northern parts of Telangana under normal conditions. At least 10 mm of rainfall can be expected with a probability ranging from 45 to 65 percent from southern parts to northern parts of Telangana.

Existing crop condition	Anticipated weather likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Late Vegetative stage (22 SMW sown crop)	▫ Normal conditions prevail.	▫ Scouting for stem borer incidence should be done if any dead hearts are noticed. Application of granules, viz., Endosulfan 4G or Carbofuran 3G @ 5 kg/acre or 12.5 kg/ha at this stage (35 DAS). ▫ Monitor for foliar diseases like leaf blight and anthracnose.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity.	
	▫ Wide spread rains/cloudy sky / High humidity. ▫ Heavy rain followed by clear weather.	▫ After a gap of 6-12 hrs above chemical control can be taken up. ▫ Drain out excess water from the fields of black soils.

Existing crop condition	Anticipated weather likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Vegetative stage (23 SMW Sown crop)	▫ Normal conditions prevail. ▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity.	▫ Monitor for stem borer attack.
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity	▫ Inter cultivation between the rows should be done with country plough to remove weeds. The weeding within the row can also be done. ▫ Second dose of nitrogen (top dressing) @ 16 kg/acre or 40 kg/ha should be applied, if there is enough moisture. ▫ Identify the incidence of striga weeds in the field. Striga weed is the most important noxious weed, which causes heavy yield loss. Spray of Ammonium sulphate @ 50 g or Urea @ 200 g/litre of water can control the striga infestation.
	▫ Wide spread rains/cloudy sky/High humidity. ▫ Heavy rain followed by clear weather.	▫ After a clear weather of 6-12 hrs above operations (Inter- cultivation and top dressing) can be done. ▫ Drain out excess water from the black soils.
Early vegetative stage (24 SMW sown crop)	▫ Normal conditions prevail. ▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity. ▫ Scanty rain fall/intermittent cloudy weather/ moderate humidity	▫ Attack of shootfly may occur and control can be done as suggested earlier.
	▫ Wide spread rains/cloudy sky/High humidity. ▫ Heavy rain followed by clear weather.	▫ Monitor for damaged seedlings if any as possibility of soil erosion may occur and damage the seedlings. ▫ After clear weather of 6 to 18 hrs, chemical control of shootfly can be taken up. ▫ Monitor for foliar diseases. ▫ Drain out excess water from black soils.

Standard Meteorological Week: 28 (July 09-July 15)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	66.4	31.7	23.9	6.2	76.0
Mahabubnagar	29.7	31.7	23.4	6.4	71.9
Medak	43.5	31.2	23.5	-	79.7
Nalgonda	24.3	33.3	23.9	-	74.9
Ranga Reddy	30.9	32.1	23.7	6.9	71.6

Rainfall is better assured in northern and central parts of Telangana during the week. Cloudy and humid weather can be anticipated under normal conditions. At least 10 mm of rainfall can be expected with probability ranging from 40 per cent southern Telangana and 70 per cent in the northern Telangana region.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Late Vegetative stage (22 SMW sown crop)	▫ Normal conditions prevail.	▫ The crop may be monitored for its growth and incidence of pests. ▫ Monitor crop for foliar diseases.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	▫ Monitor for incidence of insect pests and diseases.
	▫ Scanty rain fall/intermittent cloudy weather/ moderate humidity.	
	▫ Wide spread rains/cloudy sky/High humidity.	
	▫ Heavy rain followed by clear weather.	▫ Lodging of plants may occur and earthing up of plants should be taken up.
Vegetative stage (23 SMW sown crop)	▫ Normal conditions prevail.	▫ Scouting for stem borer incidence should be done if any dead hearts are noticed application of granules viz., Endosulfan 4G or Carbofuran 3G @ 5 kg/acre or 12.5 kg/ha at this stage (35 DAS).
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/ moderate humidity.	▫ Monitor for incidence of insect pests and diseases.
	▫ Wide spread rains/cloudy sky/High humidity.	▫ After a dry weather of 6-12 hrs above chemical control can be taken up, if there is stem borer attack.
	▫ Heavy rain followed by clear weather.	▫ Monitor for foliar diseases.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Vegetative stage (24 SMW sown crop)	▫ Normal conditions prevail.	▫ Monitor for stem borer and control measures can be taken up as suggested earlier.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/ moderate humidity.	▫ Inter cultivation should be done with country plough to remove weeds from inter rows. The weeding within the row can also be done. ▫ Second dose of Nitrogen (top dressing) @ 40 kg/ha should be applied. ▫ Identify the incidence of striga weeds in the field. Striga weed is the most important noxious weed, which causes heavy yield loss. Spray of Ammonium sulphate @ 50 g or Urea @ 200 g/litre of water can control the striga infestation.
	▫ Wide spread rains/cloudy sky/High humidity.	▫ After dry weather of 6-12 hrs, inter cultivation and top dressing can be done.
	▫ Heavy rain followed by clear weather.	▫ Drain out excess water from the fields. If any, erosion is observed strengthen the bunds.

Standard Meteorological Week: 29 (July 16-July 22)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	76.0	31.6	23.9	6.2	76.0
Mahabubnagar	41.5	31.4	23.2	6.3	73.7
Medak	58.7	30.9	23.4	-	78.7
Nalgonda	43.3	33.6	24.5	-	75.9
Ranga Reddy	45.5	31.9	23.7	6.7	72.3

Under normal conditions, the southwest monsoon is expected to be very active during the week and slightly warm cloudy and humid conditions prevail. The probability of getting 10 mm or more rainfall ranges from 55 to 75 per cent during the week.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Late Vegetative stage (22 SMW sown crop)	▫ Normal conditions prevail. ▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity. ▫ Scanty rain fall/intermittent cloudy weather/moderate humidity.	▫ The incidence of aphids may occur. The aphids mostly found deep in the whorl of the middle leaf but also on the under side of the leaves, stems, in panicle also. Aphids suck the plant juice. The aphids produce abundance of honeydew on which molds grow. In panicles honeydew may hinder the harvesting. ▫ Spray of Dimethoate 30 EC or Malathion 10 EC @ 2-3 ml/litre of water can control the aphid. ▫ The early sown crop is prone to the attack of sorghum midge. The insects suck the sap from the panicle. Damaged to sorghum is caused by larvae feeding on ovary preventing the normal grain development and resulting in the 'Blasted panicle'. ▫ Spray of Endosulfan 35 EL @ 2 ml/litre or dusting of Endosulfan 4% dust @ 10 kg/ acre or 25 kg/ha.
	▫ Wide spread rains/cloudy sky/High humidity. ▫ Heavy rain followed by clear weather.	▫ After a gap of dry weather of 6-12 hrs, above chemical control can be taken up. ▫ Monitor for foliar diseases. ▫ Drain out excess water from the fields and if soil erosion is observed strengthen the bunds.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Late vegetative stage (23 SMW Sown crop)	▫ Normal conditions prevail.	▫ Monitor for stem borer attack and aphids incidence. ▫ Control measures for the above insects may be taken up as suggested earlier.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity	▫ Monitor for stem borer attack and aphids and control measures under dry weather conditions may be taken up.
	▫ Wide spread rains/cloudy sky/High humidity.	▫ Lodging of the plants may occur and earthing up of plants should be done.
	▫ Heavy rain followed by clear weather.	▫ Monitor for foliar pathogens.
Late vegetative stage (24 SMW sown crop)	▫ Normal conditions prevail.	▫ Scouting for stem borer incidence should be done if any dead hearts are noticed application of granules, viz., Endosulfan 4G or Carbofuran 3G @ 5 kg/acre or 12.5 kg/ha at this stage (35 DAS). ▫ Incidence of aphids to be monitored and control measures may be taken up.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity	
	▫ Wide spread rains/cloudy sky/High humidity.	▫ After a gap of 6-12 hrs of dry weather, chemical control can be taken up. ▫ Drain out excess water from black soils.
	▫ Heavy rain followed by clear weather.	

Standard Meteorological Week: 30 (July 23 - July 29)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	78.6	31.5	23.7	6.1	76.9
Mahabubnagar	48.4	31.4	23.1	6.5	74.4
Medak	66.8	30.1	23.0	-	82.3
Nalgonda	39.8	32.9	23.8	-	78.6
Ranga Reddy	48.5	31.7	23.5	6.8	74.1

Under normal conditions, the southwest monsoon is expected to be active with wide spread rains, cloudy and humid weather during the week. About 20 mm of rainfall can be expected with a probability ranging from 50 to 70 per cent during the week. Dry weather conditions can be anticipated during the break monsoon situations in 2 to 3 out of 10 years.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Boot leaf stage / Early flowering stage (22 SMW sown crop)	▫ Normal conditions prevail	▫ Monitor for crop growth and incidence of pests and diseases. ▫ Monitor for stalk rot especially when drought occurs and crop is vigorously growing. If stalk rot incidence is high and drought continues, provide supplemented irrigation. For endemic regions, soil application of Trichoderma in furrows is recommended.
	▫ No rain, cloudy sky, low RH	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/ moderate humidity	▫ Monitor for pests and diseases.
	▫ Wide spread rains/cloudy sky/High humidity. ▫ Heavy rain followed by clear weather.	▫ Monitor for incidence of Anthracnose. If foliar infections are controlled, this could be reduced automatically. ▫ Drain out excess of water from the field.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Late vegetative stage (23 SMW sown crop).	▫ Normal conditions prevail ▫ No rain, cloudy sky, low RH	▫ The incidence of aphids may be observed in the whorl of the middle leaf and also under side of the leaves, stem, in panicle also. Aphids suck the plant juice and produce abundance of honeydew on which molds grow. Spray of Dimethoate 30 EC or Malathion 10 EC @ 2-3 ml/litre can control the aphid.
	▫ No rain cloudy sky, High humidity.	▫ The early sown crop is prone to the attack of sorghum midge. The insects suck the sap from the panicle. Damage is caused by larvae feeding on ovary preventing the normal grain development and resulting in the '*Blasted panicle'*. Spray of endosulfan 35 EL 2 ml/litre or dusting of Endosulfan 4G 4 % dust @ 10 kg/acre or 25 kg/ha .
	▫ Scanty rain fall/intermittent cloudy weather/ moderate humidity ▫ Wide spread rains/cloudy sky/High humidity. ▫ Heavy rain followed by clear weather.	▫ Monitor for anthracnose and leaf blight ▫ Monitor for stem canker stage (Anthracnose) ▫ Drain out excess water from the fields.
Late vegetative stage (24 SMW sown crop)	▫ Normal conditions prevail ▫ No rain, cloudy sky, low RH ▫ No rain cloudy sky, High humidity. ▫ Scanty rain fall/intermittent cloudy weather/ moderate humidity	▫ Monitor for pests and diseases. The incidence of aphids may be monitored and controlled measures should be adopted.
	▫ Wide spread rains/cloudy sky/High humidity.	▫ Lodging of the plant s may occur and earthing up of plants should be done. ▫ Monitor for leaf blight and anthracnose.
	▫ Heavy rain followed by clear weather.	▫ Drain out excess water from the fields.

Standard Meteorological Week: 31 (July 30-August 05)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	78.6	31.5	23.7	6.1	78.9
Mahabubnagar	44.5	30.6	23.0	6.4	77.4
Medak	58.0	29.6	22.9	-	82.2
Nalgonda	32.1	31.7	23.0	-	78.5
Ranga Reddy	42.6	31.0	23.4	6.8	75.6

Under normal conditions, the southwest monsoon will be active during the week and rainfall at least 20mm can be expected with a probability of 50 percent in Southern Telangana and 70 percent in Northern Telangana. Generally cloudy and humid conditions are likely to prevail during most of the years. Dry spells or lack of rainfall is also possible in 15 to 20 percent of the years.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Early panicle formation (22 SMW sown crop).	▫ Normal conditions prevail ▫ No rain, cloudy sky, low RH ▫ No rain cloudy sky, High humidity.	▫ The incidence of sorghum ear head bug may occur. Both nymphs and adults infest the panicles as soon as they emerge from the boot leaf and suck sap from the developing grain. Consequently, grain attacked in an early stage of development is shriveled, reducing crop yield. Older grain shows distinct feeding punctures that reduce grain quality. Application of Carbary l 4% dust @8 kg/acre or 20 kg/ha on panicles can check the infestation. ▫ The early sown crop is prone to the attack of sorghum midge. The insects suck the sap from the panicle. Damaged to sorghum is caused by larvae feeding on ovary preventing the normal grain development and resulting in the 'Blasted panicle'. ▫ Spray of Endosulfan 35 EL@2 ml/litre of water or dusting of Endosulfan 4% dust @10 kg/acre or 25 kg/ha.
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity ▫ Wide spread rains/cloudy sky/ High humidity.	▫ Incidence of sugary disease and sooty mould development may take place. Sugary secretions may give gummy appearance and drop-by-drop secretions will come out from good ergot free seed. The affected grain turns black. Spray of Mancozeb 75 WP@ 2 g or Benlate 50 WP @ 1 g/litre can control the disease. ▫ Monitor for grain molds when high humidity, continuous rain and warmer conditions prevail especially in cultivars.
	▫ Heavy rain followed by clear weather.	▫ After gap of 12-18 hrs of dry weather above chemical control can be taken up, if the above pests / diseases are noticed. ▫ Drain out excess water from the fields.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Early boot leaf stage (23 SMW sown crop).	▫ Normal conditions prevail. ▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity.	▫ Regular monitoring for pests / diseases as indicated. ▫ Monitor for stalk rots especially charcoal rot.
	▫ Scanty rain fall/ intermittent cloudy weather/moderate humidity.	▫ Monitor for pests / diseases as indicated.
	▫ Wide spread rains/cloudy sky/High humidity. ▫ Heavy rain followed by clear weather.	▫ After a gap of 6-12 hrs inter cultivation and fertilizer application can be taken up. ▫ Monitor for pests / diseases as indicated. ▫ Drain out excess water from black soil areas.
Late vegetative stage (24 SMW sown crop).	▫ Normal conditions prevail. ▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity.	▫ The incidence of aphids may occur. The aphids mostly found deep in the whorl of the middle leaf but also on the under side of the leaves, stems, in panicle also. Aphids suck the plant juice. The aphids produce abundance of honeydew on which molds grow. In panicles honeydew may hinder the harvesting. ▫ Spray of Dimethoate 30 EC or Malathion 10 EC @ 2-3 ml/litre can control the aphid.
	▫ Scanty rainfall/intermittent cloudy weather/moderate humidity. ▫ Wide spread rains/cloudy sky/High humidity.	▫ Monitor for pests / diseases as indicated above.
	▫ Heavy rain followed by clear weather.	▫ Drain out excess water from black soils or incase of soil erosions, strengthen the bunds.

Standard Meteorological Week: 32 (August 06-August 12)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	70.4	30.4	23.4	6.3	80.0
Mahabubnagar	32.9	30.6	22.8	6.9	77.7
Medak	44.3	28.4	22.5	-	85.6
Nalgonda	28.6	32.5	22.3	-	78.9
Ranga Reddy	34.4	30.9	23.1	7.0	76.3

The monsoon rains are comparatively better assured in the central and northern parts of Telangana with probability of getting 10mm or more rainfall ranging from 60 to 70 percent cloudy and humid conditions can be expected with probability of 70 percent.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Milky grain development (22 SMW sown crop).	▫ Normal conditions prevail.	▫ Possibility of occurrence of gray mould disease. The grains show blackish white spot and later turn into pink colour. Spray of Capton 50 WP @ 2 g/litre + Ariofungin @ 200 ppm. Or Carbandazim 50 WP @ 1g/litre can check the disease after a gap of 6 – 12 hrs dry period. ▫ Monitor for earhead bug, midge.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity.	
	▫ Wide spread rains/cloudy sky/High humidity. ▫ Heavy rain followed by clear weather.	▫ Monitor for grain molds. ▫ Remove excess water from black soils.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Early panicle formation (23 SMW sown crop).	▫ Normal conditions prevail. ▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity. ▫ Scanty rain fall/intermittent cloudy weather/moderate humidity.	▫ The incidence of sorghum ear head bug may occur. ▫ Both nymphs and adults infest the panicles as soon as they emerge from the boot leaf and suck sap from the developing grain. Consequently, grain attacked in an early stage of development is shriveled, reducing crop yield. Older grain shows distinct feeding punctures that reduce grain quality. Application of Carbaryl dust 4% @ 8 kg/acre 20 kg/ha on panicles can check the infestation.
	▫ Wide spread rains/cloudy sky/High humidity. ▫ Heavy rain followed by clear weather.	▫ Incidence of sugary disease and sooty mould development may take place. Sugary secretions may give gummy appearance and drop-by-drop secretions will come out. The affected grain turns black. Spray of Mancozeb 75 WP @ 2 g or Benlate 50 WP @ 1 g/litre can control the disease. ▫ After gap of 12-18 hrs above chemical control can be taken up. ▫ Drain out excess water from the fields.
Early boot leaf stage (24 SMW sown crop).	▫ Normal conditions prevail.	▫ Monitor for midge, charcoal rot.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity.	▫ As under normal conditions.
	▫ Wide spread rains / cloudy sky / High humidity. ▫ Heavy rain followed by clear weather.	▫ Monitor for stalk rots. ▫ Drain out excess water from black soils.

Standard Meteorological Week: 33 (August 13-August 19)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	68.3	30.4	23.4	6.2	79.6
Mahabubnagar	43.2	30.4	22.7	6.6	77.2
Medak	58.6	30.6	23.1	-	82.1
Nalgonda	34.2	34.5	23.8	-	80.7
Ranga Reddy	46.7	30.8	23.0	6.8	75.9

The rainfall is better assured in the central and northern parts of Telangana with probability of getting at least 20mm ranging from 55 to 65 percent. Cloudy and humid conditions will generally persist during 65 to 75 percent of the years.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Early ear head formation (22 SMW sown crop).	▫ Normal conditions prevail. ▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity.	▫ Scouting for occurrence of ear head bugs if any.
	▫ Scanty rainfall/intermittent cloudy weather/moderate humidity. ▫ Wide spread rains/cloudy sky/High humidity. ▫ Heavy rain followed by clear weather.	▫ Monitor for diseases. ▫ Drain out excess water from fields.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Milky grain development (23 SMW sown crop).	▫ Normal conditions prevail.	▫ Possibility of occurrence of gray mould disease. The grains show blackish white spot and later turn into pink colour. Spray of Capton 50 WP @ 2 g/litre + Ariofungin @ 200 ppm or Carbandazim 50 WP @ 1g/litre can check the disease.
	▫ No rain, cloudy sky, low RH.	▫ Monitor for midge and earhead bug.
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity.	
	▫ Wide spread rains/cloudy sky/High humidity. ▫ Heavy rain followed by clear weather.	▫ Drain out excess water from fields.
Early panicle formation (24 SMW sown crop).	▫ Normal conditions prevail.	▫ The incidence of sorghum ear head bug may occur. ▫ Both nymphs and adults infest the panicles as soon as they emerge from the boot leaf and suck sap from the developing grain. Consequently, grain attacked in an early stage of development is shriveled, reducing crop yield. Older grain shows distinct feeding punctures that reduce grain quality. Application of Carbaryl 4% dust @ 8 kg/acre or 20 kg/ha on panicles can check the infestation.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity.	
	▫ Wide spread rains/cloudy sky/High humidity.	
	▫ Heavy rain followed by clear weather.	▫ Drain out excess water from fields.

Standard Meteorological Week: 34 (August 20-August 26)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	62.5	30.7	23.4	5.9	78.3
Mahabubnagar	35.2	30.8	22.7	6.5	76.3
Medak	45.3	29.4	22.6	-	85.7
Nalgonda	29.9	33.8	23.5	-	79.0
Ranga Reddy	36.6	31.0	23.2	6.6	75.1

Cloudy and humid conditions are likely to persist if the southwest monsoon is active and at least 20mm of rainfall can be expected with a probability ranging from 40 to 60 percent. The possibility of occurrence of dry weather conditions due to monsoon breaks can be anticipated in 15 to 20 percent of the years.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Grain development stage (22 SMW sown crop).	▫ Normal conditions prevail.	▫ If intense rainfall occurs, lodging may take place and tying (propping) up leaves is required.
	▫ No rain, cloudy sky, low RH.	▫ Scouting for ear head bug or midge pests if they are noticed.
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity.	
	▫ Wide spread rains/cloudy sky/High humidity.	▫ Drain out excess waters from black soils.
	▫ Heavy rain followed by clear weather.	

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Early ear head formation (23 SMW sown crop).	▫ Normal conditions prevail.	▫ Scouting for occurrence of ear head bugs if any. Chemical control as above. ▫ Monitor for grain molds.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity	
	▫ Wide spread rains/cloudy sky/High humidity.	
	▫ Heavy rain followed by clear weather.	▫ Drain out excess water from fields.
Milky grain development (24 SMW sown crop).	▫ Normal conditions prevail.	▫ Scouting for occurrence of ear head bugs if any. Chemical control as above.
	▫ No rain, cloudy sky, low RH.	▫ Regular monitor for midge / earhead bug. ▫ Monitor for sugary disease and grain molds.
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity. ▫ Wide spread rains/cloudy sky/High humidity.	▫ Possibility of occurrence of grey molds disease. The grains appear blackish white spot and later turn into pink colour. Spray of Capton 50 WP @ 2 g/litre + Ariofungin @ 200 ppm or Carbandazim 50 WP @ 1g/litre can check the disease.
	▫ Heavy rain followed by clear weather.	▫ Drain out excess water from fields.

Standard Meteorological Week: 35 (August 27-September 02)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	58.5	30.7	23.3	5.9	78.3
Mahabubnagar	35.2	30.8	22.7	6.1	73.9
Medak	43.0	29.9	22.7	-	81.0
Nalgonda	36.9	33.2	23.7	-	81.2
Ranga Reddy	38.6	31.1	23.1	6.5	73.5

Monsoon is generally expected to be active during the week with probability of getting at least 20mm of rainfall ranging from 45 to 60 percent. The humid weather conditions prevail most of the years. Break monsoon conditions associated with dry weather can be anticipated in 15 to 20 percent of the years.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Grain development stage (22 SMW sown crop).	▫ Normal conditions prevail.	▫ Now crop is vulnerable to bird attack. Scaring of birds should be done either physically or through glittering ribbons.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/ moderate humidity	▫ If rainfall events of high intensity occur, lodging may take place and tieing (propping) up of leaves needs to be done. ▫ Monitor for lodging, earhead bug, and mold.
	▫ Wide spread rains/cloudy sky/ High humidity.	▫ Lodging of the plants may take place, proper teing (propping) up is required.
	▫ Heavy rain followed by clear weather.	▫ Remove excess water from the fields.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Grain development stage (23 SMW sown crop).	▫ Normal conditions prevail. ▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity. ▫ Scanty rain fall/intermittent cloudy weather/ moderate humidity. ▫ Wide spread rains/cloudy sky/ High humidity.	▫ Scouting for ear head bug or midge pests and natural enemies. ▫ Monitor for grain molds. ▫ Now crop is vulnerable to bird attack. Scaring of birds should be done either physically or through glittering ribbons.
	▫ Heavy rain followed by clear weather.	▫ Drain out excess water from fields.
Early ear head formation (24 SMW sown crop).	▫ Normal conditions prevail. ▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity. ▫ Scanty rain fall/intermittent cloudy weather/moderate humidity. ▫ Wide spread rains/cloudy sky/ High humidity.	▫ Scouting for earhead bug or midge pests if they are noticed and chemical control can be taken up as described earlier. ▫ Monitor for grain molds.
	▫ Heavy rain followed by clear weather.	▫ Drain out excess water.

Standard Meteorological Week: 36 (September 03-September 09)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	51.6	31.0	23.1	5.3	76.6
Mahabubnagar	30.7	31.3	22.7	6.0	73.1
Medak	44.0	30.0	22.9	-	83.4
Nalgonda	34.3	32.3	23.6	-	85.3
Ranga Reddy	47.2	31.3	23.1	6.3	72.9

Partly cloudy and humid weather with a probability of getting at least 20 m rainfall ranging 45 to 60 percent can be expected under normal conditions. However dry weather conditions associated with break-monsoon situation occurs with a probability of 15 to 25 per cent.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Harvesting stage (22 SMW sown crop).	▫ Normal conditions prevail.	▫ Check for maturity of the grain. The grains in the bottom portion of the ear head should turn from green to white in colour are the indication for the maturity of the grain. Once the grain is pressed, it should become powder.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity.	
	▫ Wide spread rains/cloudy sky/High humidity. ▫ Heavy rain followed by clear weather.	▫ After a gap of 6-18 hrs dry period, harvesting can be done. ▫ Protect the grains from wetting by rainfall. ▫ Dry grains immediately. Separate out infected heads.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Grain development stage (23 SMW sown crop).	▫ Normal conditions prevail. ▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity. ▫ Scanty rain fall/intermittent cloudy weather/ moderate humidity.	▫ Scouting for ear head bug or midge pests and natural enemies. ▫ Monitor for grain molds. ▫ Now crop is vulnerable to bird attack. Scaring of birds should be done either physically or through glittering ribbons.
	▫ Wide spread rains/cloudy sky/High humidity.	▫ Lodging of the plants may take place proper tieing (propping) up is required.
	▫ Heavy rain followed by clear weather.	▫ Drain out excess waters from fields
Grain development stage (24 SMW sown crop).	▫ Normal conditions prevail. ▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity. ▫ Scanty rain fall/intermittent cloudy weather/ moderate humidity. ▫ Wide spread rains/cloudy sky/High humidity.	▫ Scouting for ear head bug or midge pests if they are noticed chemical control can be taken up.
	▫ Heavy rain followed by clear weather.	▫ Remove excess water from fields.

Standard Meteorological Week: 37 (September 10-September 16)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	33.7	31.9	23.2	4.9	74.5
Mahabubnagar	32.4	31.8	22.8	5.7	71.4
Medak	39.8	30.7	22.8	-	79.6
Nalgonda	30.6	34.5	24.3	-	74.4
Ranga Reddy	42.2	32.0	23.2	5.9	71.9

Early withdrawal of monsoon or break monsoon conditions lead to dry weather conditions in 15 to 25 percent of the years. The probability getting 10mm or more rain is maximum of 65 percent in Ranga Reddy district and minimum of 50 percent in Adilabad district.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Harvesting stage (22 SMW sown crop).	▫ Normal conditions prevail. ▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity. ▫ Scanty rain fall/intermittent cloudy weather/moderate humidity.	▫ Crop is now ready for harvest and take up harvest on a very clear sunny day. Harvested produce may be shifted to safer place to retain quality of grain and avoid exposure to rain and mould attack.
	▫ Wide spread rains/cloudy sky/High humidity. ▫ Heavy rain followed by clear weather.	▫ After a substantial dry period crop can be harvested. ▫ Separate out molded heads and ergot heads.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Harvesting stage (23 SMW sown crop).	▫ Normal conditions prevail.	▫ Check for maturity of the grain. The grains in the bottom portion of the ear head should turn from green to white in colour are the indication for the maturity of the grain. Once the grain is pressed it should become powder. ▫ The grain should not become paste.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/moderate humidity.	
	▫ Wide spread rains/cloudy sky/High humidity. ▫ Heavy rain followed by clear weather.	▫ After a gap of 6-18 hrs of dry period, maturity of grain can be tested as described earlier.
Grain development stage (24 SMW sown crop).	▫ Normal conditions prevail. ▫ No rain, cloudy sky, low RH. ▫ No rain cloudy sky, High humidity. ▫ Scanty rain fall/intermittent cloudy weather/moderate humidity. ▫ Wide spread rains/cloudy sky/High humidity.	▫ Lodging of the plants may take place proper tying (propping) up is required. ▫ Protect the harvest from rains and take it to safer places.
	▫ Heavy rain followed by clear weather.	Drain out excess water.

Standard Meteorological Week: 38 (September 17-September 23)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	43.0	32.8	23.4	4.4	72.6
Mahabubnagar	40.2	31.8	22.9	5.8	74.4
Medak	50.6	31.3	23.0	-	81.2
Nalgonda	38.5	34.5	24.0	-	76.5
Ranga Reddy	48.2	32.0	23.1	5.8	73.4

Although the average rainfall is between 38.5 to 50.6 mm during the week, the average cloud amount is less than 6 octas suggesting partly cloudy skies prevail and intense rains likely under normal monsoon conditions. Early withdrawl of monsoon and break monsoon conditions can be expected with a probability of 20 to 25 percent.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Harvesting stage (23 SMW sown crop).	▫ Normal conditions prevail.	▫ Crop is now ready for harvest. Crop should be harvested on a very clear sunny day. Harvested grain. May be shifted to safer places to retain the quality of grain and exposure to rain and mould attack.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/ moderate humidity	
	▫ Wide spread rains/cloudy sky/High humidity. ▫ Heavy rain followed by clear weather.	▫ After a substantial dry period crop can be harvested. Harvested grain. ▫ Separate out moldy head and ergot heads.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Harvesting stage (24 SMW sown crop).	▫ Normal conditions prevail.	▫ Check for maturity of the grain. The grains in the bottom portion of the ear head should turn from green to white in colour are the indication for the maturity of the grain. Once s the grain is pressed it should not become powder.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather/ moderate humidity	
	▫ Wide spread rains/cloudy sky/High humidity. ▫ Heavy rain followed by clear weather.	▫ After a gap of 6-18 hrs dry period maturity of grain can be tested. ▫ Drain out excess water from the field.

Standard Meteorological Week: 39 (September 24-September 30)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	33.3	33.1	23.2	4.1	71.3
Mahabubnagar	45.3	31.8	22.5	5.6	73.5
Medak	39.8	31.4	22.6	-	22.0
Nalgonda	38.5	36.0	24.2	-	79.1
Ranga Reddy	42.8	32.2	23.0	5.6	72.7

The week coincides with the beginning of cessation of southwest monsoon season under normal conditions. Rainfall probabilities are generally more in southern Telangana region. Dry weather conditions associated with withdrawal of monsoon can be expected in 20 to 30 percent of the years.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Harvesting stage (24 SMW sown crop)	▫ Normal conditions prevail.	▫ Crop is now ready for harvest. Crop should be harvested on a very clear sunny day. Harvested produce may be shifted to safer place to retain quality of grain and exposure to rain and mould attack.
	▫ No rain, cloudy sky, low RH.	
	▫ No rain cloudy sky, High humidity.	
	▫ Scanty rain fall/intermittent cloudy weather /moderate humidity.	
	▫ Wide spread rains/cloudy sky/High humidity.	▫ Separate out moldy heads and ergot heads.
	▫ Heavy rain followed by clear weather.	▫ Drain out excess water.

Standard Meteorological Week: 40 (October 01 – October 07)

District	Rainfall (mm)	Max. Temp (°C)	Min. Temp (°C)	Cloudiness (Octas)	RH (%)
Adilabad	24.9	33.1	22.7	3.6	69.4
Mahabubnagar	33.0	31.5	22.3	5.4	74.1
Medak	26.7	31.8	22.4	-	79.9
Nalgonda	35.7	35.5	24.6	-	76.7
Ranga Reddy	27.2	32.0	22.7	5.1	71.9

The week coincides with the withdrawal of southwest monsoon over Telangana region and onset of northeast monsoon. The rainfall is generally more in southern parts of Telangana compared to northern Telangana. In the absence of rains, generally dry and clear sky conditions prevail in the region.

Existing crop condition	Anticipated weather Likely to be observed during the week	Likely effect of Anticipated change in weather on the crop and management decision to be taken
Harvested crop (sown during 22, 23 and 24 weeks)	▫ For all situations	▫ Proper drying and threshing should be taken up to maintain good quality grain and fodder.