

**F. No. 3-1/ 2016-17-CFCC-E&S**  
**GOVERNMENT OF INDIA**  
**MINISTRY OF AGRICULTURE AND FARMERS WELFARE**  
**DEPARTMENT OF AGRICULTURE, COOPERATION AND FARMERS WELFARE**  
**(CROP FORECAST COORDINATION CENTRE)**

Room No. 344-A, Krishi Bhawan, New Delhi  
Dated: 07.03.2017

**SUBJECT: MINUTES OF THE MEETING OF THE CROP WEATHER WATCH GROUP HELD ON 03.03.2017.**

**Summary observations of the Group on Agenda Items**

- Details of the mean maximum and minimum temperature during the week 23<sup>rd</sup> February, 2017 to 01<sup>st</sup> March, 2017 were as under:-

**Maximum Temperature**

- *Above normal by 4 to 6<sup>o</sup>C over some parts of Saurashtra & Kutch and isolated pockets of Himachal Pradesh, West Rajasthan and Gujarat Region and by 2 to 4<sup>o</sup>C over Punjab, Haryana & Delhi, many parts of Jammu & Kashmir, Himachal Pradesh, Rajasthan, Gujarat, Vidarbha, Madhya Maharashtra, Konkan & Goa, Karnataka, Telangana, Rayalaseema, some parts of Uttar Pradesh, Madhya Pradesh, Jharkhand, Odisha, Kerala, Tamil Nadu, Lakshadweep and isolated pockets of Uttarakhand and Chhattisgarh.*
- *Normal to near normal over rest of the country.*

**Minimum Temperature**

- *Above normal by 4 to 6<sup>o</sup>C at isolated pocket of Saurashtra & Kutch and by 2 to 4<sup>o</sup>C over many parts of Andaman & Nicobar Islands, Saurashtra & Kutch, some parts of Jammu & Kashmir, Himachal Pradesh and isolated pockets of West Rajasthan.*
- *Normal to near normal over rest of the country except some parts of Telangana and isolated pockets of Madhya Pradesh, Vidarbha, Odisha and North Interior Karnataka where it was below normal by 2 to 4<sup>o</sup>C.*
- *In the winter season, at All-India level, the rainfall during the week (23<sup>rd</sup> February, 2017 – 01<sup>st</sup> March, 2017) has been 73% lower than the Long Period Average (LPA). Rainfall in the four broad geographical divisions of the country during the above period have been lower by 97% in South Peninsula, 91% in North West India, 15% in East & North East India and lower by equal to LPA in Central India.*
- *The cumulative rainfall in the country during the winter season i.e. 01<sup>st</sup> January to 28<sup>th</sup> February, 2017 has been 5% lower than the Long Period Average (LPA). Rainfall in the four broad geographical divisions of the country during the above period have been higher by 33% in North West India and lower by 82% in Central Indian, 54% in East & North East India, 15% in South Peninsula.*

- *Out of 36 met sub-divisions, 05 met subdivisions constituting 14% of the total area of the country has received large excess/excess rainfall, 05 met sub-divisions constituting 14% of the total area of the country has received normal rainfall, 08 met sub-divisions constituting 20% of the total area of the country has received deficient, 12 met sub-divisions constituting 37% of the total area of the country has received large deficient rainfall and 06 met subdivisions constituting 15% of the total area of the country has received No Rain.*
- *Central Water Commission monitors 91 major reservoirs in the country which have total live capacity of 157.80 Billion Cubic Meter (BCM) at Full Reservoir Level (FRL). Out of these, 76 reservoirs with FRL capacity of 116.25 BCM have irrigation potential. Live storage in the 91 major reservoirs as on 02<sup>nd</sup> March, 2017 has been 64.55 BCM as against 49.08 BCM on 02.03.2016 (last year) and 63.12 BCM of normal (average of the last 10 years) storage. Current year's storage is 132% of last year's storage and 102% of the average of last 10 year's storage.*
- *All-India progressive procurement of Rice as on 03.03.2017 for the Kharif marketing season 2016-17 was 305.55 lakh tonnes against the procurement of 285.31 lakh tonnes in the corresponding period of last year.*
- *Availability position of seeds and fertilizers has been found satisfactory.*

1. Winter Season (January–February) during the week ending on 01<sup>st</sup> March, 2017

➤ **Sub-division-wise weekly rainfall & minimum temperature is shown in Table-1.1**

- **Rainfall during the week (23<sup>rd</sup> March, 2017 to 01<sup>st</sup> March, 2017)** Rainfall was large excess/excess in 01 subdivision, normal in 02, deficient/large deficient in 11 and no rain in 22 subdivisions out of 36 meteorological sub-divisions.
- **Cumulative rainfall (01<sup>st</sup> Jan., 2017 to 28<sup>th</sup> Feb., 2017)** Rainfall was large excess/excess in 05, normal in 05, deficient/large deficient in 20 and no rain in 06 out of 36 meteorological sub-divisions.

**Table - 1.2: Weekly and Cumulative Rainfall in four regions of the country<sup>1</sup>**

Region	Week Ending (28.02.2017)				Cumulative (01.01.17 to 28.02.17)			
	(in mm)		Devi- ation (%)	Cat.	(in mm)		Devi- ation (%)	Cate- gory
	Actual	Normal			Actual	Normal		
North-West India	1.0	11.2	-91	LD	103.2	77.6	33	E
Central India	0.0	2.0	-100	NR	2.9	15.9	-82	LD
South Peninsular India	0.1	2.1	-97	LD	12.9	15.2	-15	N
East & North-East India	8.3	9.8	-15	N	25.5	55.8	-54	D
Country as a whole	1.7	6.1	-73	LD	39.3	41.4	-5	N

LE: Large Excess, E: Excess, N: Normal, D: Deficient, LD: Large Deficient, NR: No Rain.

Source: India Meteorological Department, New Delhi

**Table - 1.3: Category wise comparative distribution of Sub-division (cumulative rainfall) and All-India Percentage Rainfall Departure for the last five years since: 1<sup>st</sup> January to**

No. of Sub-Divisions with rainfall	For the period from 1 <sup>st</sup> January to					
	29 FEB 2012	28 FEB 2013	28 FEB 2014	28 FEB 2015	29 FEB 2016	28 FEB 2017
Large Excess	-	-	-	-	-	02
Excess	07	25	16	09	03	03
Normal	03	04	05	09	03	05
<b>Total</b>	<b>10</b>	<b>29</b>	<b>21</b>	<b>18</b>	<b>06</b>	<b>10</b>
Deficient	12	02	10	12	11	08
Large Deficient	-	-	-	-	-	12
Scanty	11	05	05	06	16	-
No rain	03	00	00	00	03	06
<b>Total</b>	<b>26</b>	<b>07</b>	<b>15</b>	<b>18</b>	<b>30</b>	<b>26</b>
Data Inadequate	00	00	00	00	00	00
<b>TOTAL</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>	<b>36</b>
<b>All-India % Rainfall Deviation</b>	<b>(-) 5%</b>	<b>26%</b>	<b>13%</b>	<b>(-) 9%</b>	<b>(-) 57%</b>	<b>(-) 5%</b>

Source: IMD

➤ Sub-division-wise 5 days rainfall forecast from 06<sup>th</sup> Mar.,2017 to 10<sup>th</sup> March,2017 is shown in Table 1.4

1. North-west India - Uttar Pradesh, Rajasthan, Haryana, Chandigarh and Delhi, Punjab, Uttaranchal, Himachal Pradesh, and Jammu and Kashmir.

Central India - Madhya Pradesh, Chhattisgarh, Maharashtra and Gujarat

South Peninsula - Andhra Pradesh, Karnataka, Tamil Nadu & Pondicherry, Kerala and Lakshadweep.

East & North East India - Bihar, Jharkhand, Orissa, West Bengal, Sikkim, Assam, Arunachal Pradesh, Meghalaya, Nagaland, Manipur, Mizoram, Tripura, and Andaman and Nicobar Islands.

**Table: 1.1**

METEOROLOGICAL SUB-DIVISIONWISE DAILY DISTRIBUTION OF MINIMUM TEMPERATURE & RAINFALL -2017															
S.No.	SUB-DIVISIONS	MINIMUM TEMPERATURE							RAINFALL						
		23 FEB	24 FEB	25 FEB	26 FEB	27 FEB	28 FEB	01 MAR	23 FEB	24 FEB	25 FEB	26 FEB	27 FEB	28 FEB	01 MAR
1	ANDAMAN & NICOBAR ISLANDS	N	N	AN	N	N	N	N	DRY	DRY	DRY	ISOL	DRY	ISOL	SCT
2	ARUNACHAL PRADESH	N	N	N	N	BN	AN	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
3	ASSAM & MEGHALAYA	N	N	N	N	BN	N	N	DRY	DRY	DRY	DRY	DRY	DRY	ISOL
4	NAGA,MANI,MIZO,TRIPURA	N	N	N	N	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
5	SUB-HIMA.WEST BEN. & SIKKIM	N	N	N	N	N	AN	N	ISOL	ISOL	ISOL	DRY	ISOL	ISOL	DRY
6	GANGETIC WEST BENGAL	N	N	N	N	N	N	N	ISOL	DRY	DRY	DRY	DRY	DRY	DRY
7	ODISHA	N	N	BN	N	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
8	JHARKHAND	N	N	N	BN	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
9	BIHAR	N	N	N	N	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
10	EAST UTTAR PRADESH	N	N	N	N	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
11	WEST UTTAR PRADESH	N	N	N	N	N	N	AAN	DRY	DRY	DRY	DRY	DRY	DRY	ISOL
12	UTTARAKHAND	N	N	N	N	N	AN	N	ISOL	DRY	DRY	DRY	DRY	DRY	ISOL
13	HARYANA CHAND. & DELHI	N	N	N	N	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
14	PUNJAB	N	N	N	N	N	N	AN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	N	N	N	AN	N	AAN	N	ISOL	DRY	DRY	DRY	DRY	ISOL	ISOL
16	JAMMU & KASHMIR	N	N	N	N	N	N	AAN	ISOL	ISOL	ISOL	ISOL	DRY	DRY	WS
17	WEST RAJASTHAN	N	N	N	N	N	N	AAN	DRY	DRY	DRY	DRY	DRY	DRY	ISOL
18	EAST RAJASTHAN	N	N	N	N	N	N	AAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
19	WEST MADHYA PRADESH	N	N	BN	N	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	N	N	BN	N	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
21	GUJARAT REGION D.D. & N.H.	N	N	N	N	BN	N	AN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
22	SAURASTRA KUTCH & DIU	AN	N	N	N	BN	N	AAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	N	N	AN	N	BN	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
24	MADHYA MAHARASHTRA	N	N	N	N	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
25	MARATHAWADA	N	N	N	BN	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
26	VIDARBHA	N	N	N	ABN	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
27	CHHATTISGARH	N	N	BN	N	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
28	COASTAL ANDHRA PRADESH	N	N	N	N	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
29	TELANGANA	N	N	N	N	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
30	RAYALASEEMA	N	N	N	N	N	BN	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
31	TAMILNADU & PUDUCHERRY	N	N	N	N	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	ISOL
32	COASTAL KARNATAKA	N	AN	AN	AN	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
33	NORTH INTERIOR KARNATAKA	N	N	N	N	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
34	SOUTH INTERIOR KARNATAKA	N	N	N	N	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY
35	KERALA	AN	N	N	N	BN	N	N	DRY	DRY	DRY	ISOL	DRY	DRY	ISOL
36	LAKSHADWEEP	N	N	N	N	N	N	N	DRY	DRY	DRY	DRY	DRY	DRY	DRY

LEGENDS FOR RAINFALL:													
WDS	WIDE SPREAD / MOST PLACES (76-100%)	FWS	FAIRLY WIDE SPREAD / MANY PLACES (51-75%)	SCT	SCATTERED / FEW PLACES (26-50%)	ISOL	ISOLATED (UP TO 25 %)						
DRY	NO STATION REPORTED RAINFALL	RAINFALL ACTIVITY		*	ACTIVE (R/F 1 <sup>st</sup> - 4 times the normal)	**	VIGOROUS (R/F More than 4 times)						
(ACTIVE R/F 1 <sup>st</sup> - 4 times the normal & WS/FWS, at least 2 stations should be 5 cm. along west coast & 3 cm. elsewhere)				(VIGOROUS R/F More than 4 times the normal & WS/FWS, at least 2 stations should be 8 cm. along west coast & 5 cm. elsewhere)									

LEGENDS FOR TEMPERATURE:													
N	NORMAL (N±1,N-1) <sup>o</sup> C	BN	BELOW NORMAL (N-2) <sup>o</sup> C	ABN	APRECIABLY BELOW NORMAL (N-3, -4) <sup>o</sup> C	MBN	MARKEDLY BELOW NORMAL (N-5 AND BELOW) <sup>o</sup> C						
AN	ABOVE NORMAL (N+2) <sup>o</sup> C	AAN	APRECIABLY ABOVE NORMAL (N+3,+4) <sup>o</sup> C	MAN	MARKEDLY ABOVE NORMAL (N+5 AND ABOVE) <sup>o</sup> C								
*	Cold wave conditions (Departure from Normal is (-4 <sup>o</sup> C to -5 <sup>o</sup> C and -5 <sup>o</sup> C to -6 <sup>o</sup> C)				**	Severe Cold wave conditions (Departure from Normal is (-6 <sup>o</sup> C or less and -7 <sup>o</sup> C or less)							

Table: 1.4

Met-Sub-Division	06-Mar Today	07Mar Tue	08Mar Wed	09Mar Thu	10Mar Fri
1. Andaman & Nicobar Islands	ISOL	ISOL	DRY	DRY	DRY
2. Arunachal Pradesh	FWS	ISOL	ISOL	SCT	SCT
3. Assam & Meghalaya	FWS	ISOL	ISOL	SCT	SCT
4. N. M. M. & T.	FWS	ISOL	ISOL	SCT	SCT
5. S.H. West Bengal & Sikkim	DRY	ISOL	ISOL	SCT	SCT
6. Gangetic West Bengal	ISOL	ISOL	SCT	ISOL	ISOL
7. Odisha	ISOL	ISOL	SCT	ISOL	ISOL
8. Jharkhand	DRY	ISOL	ISOL	ISOL	ISOL
9. Bihar	DRY	DRY	ISOL	ISOL	ISOL
10. East Uttar Pradesh	DRY	DRY	ISOL	ISOL	ISOL
11. West Uttar Pradesh	DRY	ISOL	ISOL	ISOL	ISOL
12. Uttarakhand	DRY	SCT	FWS	FWS	FWS
13. Haryana, Chd & Delhi	DRY	ISOL	ISOL	ISOL	ISOL
14. Punjab	DRY	ISOL	ISOL	SCT	SCT
15. Himachal Pradesh	ISOL	FWS	WS	WS	WS
16. Jammu & Kashmir	ISOL	FWS	WS	WS	WS
17. West Rajsthan	DRY	ISOL	ISOL	ISOL	ISOL
18. East Rajasthan	DRY	DRY	ISOL	ISOL	ISOL
19. West Madhya Pradesh	DRY	DRY	ISOL	ISOL	ISOL
20. East Madhya Pradesh	DRY	ISOL	ISOL	ISOL	ISOL
21. Gujarat Region	DRY	DRY	DRY	DRY	DRY
22. Saurashtra & Kutch	DRY	DRY	DRY	DRY	DRY
23. Konkan & Goa	DRY	DRY	DRY	DRY	DRY
24. Madhya Maharashtra	DRY	DRY	DRY	DRY	DRY
25. Marathawada	DRY	DRY	DRY	DRY	DRY
26. Vidharbha	ISOL	ISOL	ISOL	ISOL	ISOL
27. Chhattisgarh	ISOL	SCT	ISOL	ISOL	ISOL
28. Coastal Andhra Pradesh	ISOL	ISOL	ISOL	ISOL	ISOL
29. Telangana	ISOL	ISOL	ISOL	ISOL	ISOL
30. Rayalaseema	ISOL	ISOL	ISOL	ISOL	ISOL
31. Tamilnadu & Puducherry	SCT	SCT	SCT	SCT	SCT
32. Coastal Karnataka	DRY	DRY	DRY	DRY	DRY
33. North Interior Karnataka	DRY	DRY	ISOL	DRY	DRY
34. South Interior Karnataka	ISOL	SCT	SCT	ISOL	ISOL
35. Kerala	FWS	FWS	FWS	SCT	SCT
36. Lakshadweep	SCT	ISOL	ISOL	ISOL	ISOL

**% Station Reporting Rainfall**

% Stations	Category	% Stations	Category
76-100	Widespread (WS/ Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)
No Rain	Dry		

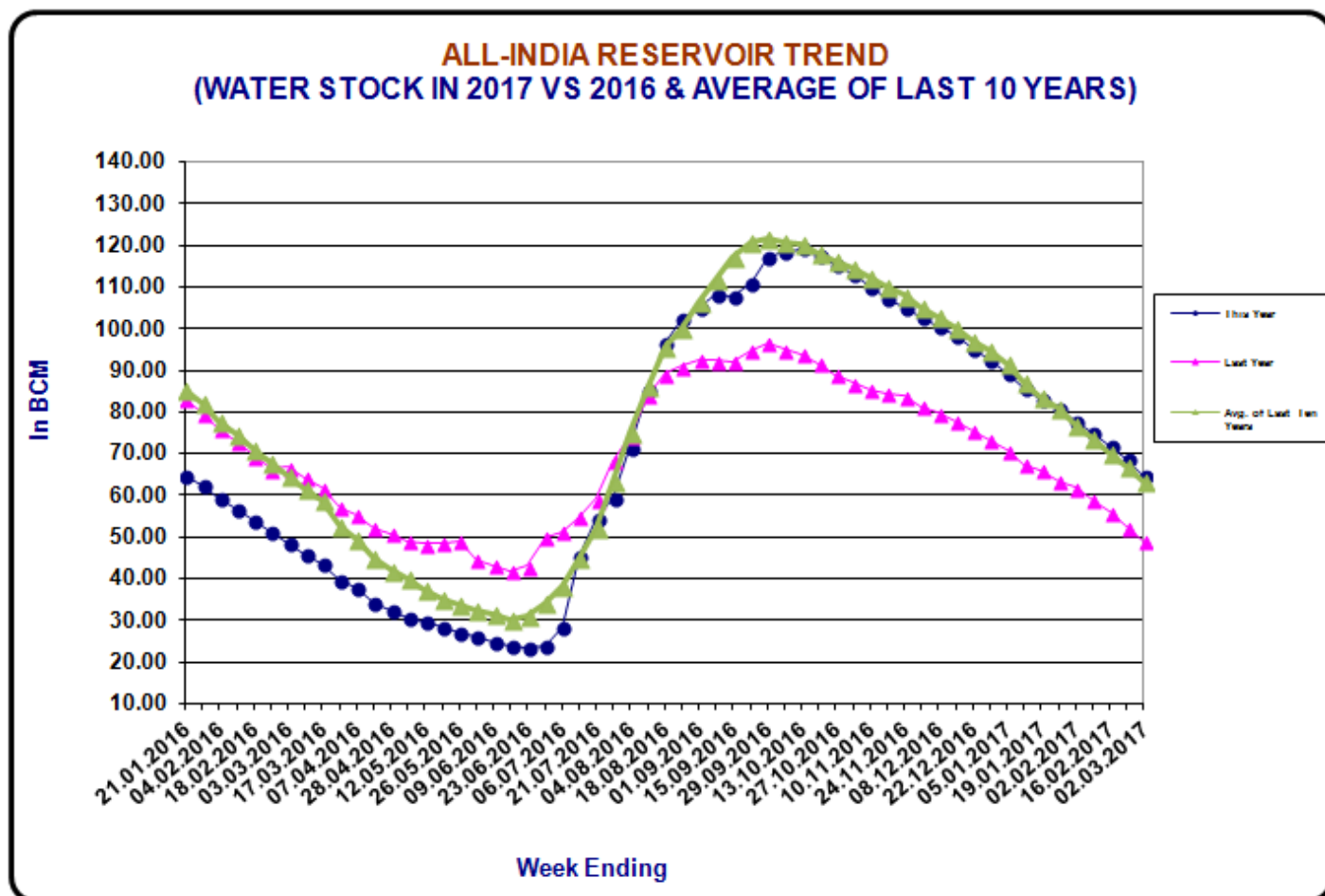
## 2. Reservoir Status (For the week ending on 02.03.2017)

- **The Central Water Commission** monitors the live storage of **91** important/major reservoirs, having capacity at Full Reservoir Level (FRL) of **157.80** billion cubic meters (BCM), which is about 62% of total reservoir capacity in the country.
- Water stock in 91 major reservoirs **decreased** to 64.55 BCM from the previous week's level of 68.74 BCM. Current storage is higher than the last year's position of 49.08 BCM and the average of last 10 year's storage of 63.12 BCM.

**Table – 2.1 : For 91 major reservoirs of the country**

Period	Storage as % of FRL	Storage as % of last year	Storage as % of 10 year's average level
Current Week	41	132	102
Last Week	44	132	103
The percentage to live capacity at FRL was 31% on 02/03/2016, 41% on 02/03/2015, 50% on 02/03/2014 and 40% on 02/03/2013.			
<i>Source: CWC</i>			

There were 56 reservoirs having storage more than 80% of normal storage, 16 reservoirs having storage between 50% to 80%, 06 reservoir having storage between 30% to 50%, 13 reservoirs having storage upto 30% of Normal Storage.



Source: Central Water Commission

### 3. Fertilizer Position:

**Table – 3.1: Requirement, Availability, Sales and Stock position of Major Fertilizers Urea, DAP, MOP, Complex and SSP during Rabi 2016-17 (As on 03.03.2017)**

(in '000 Tonnes)					
Availability / Sale / Closing Stock	Urea	DAP	MOP	Complex	SSP
Opening Stock as on 01.10.2016	1509	1308	231	1056	212
Requirement for Rabi, 2016-17	14568	4973	1703	4961	3338
Requirement upto February, 2017	1772	494	231	638	365
Availability upto 03.03.2017	14221	4720	1462	4500	1897
Sales upto 03.03.2017	12278	3349	1275	3003	1588
Closing Stock upto 03.03.2017	1944	1371	187	1497	309

Source: Fertilizer Division (DAC&FW) / Deptt. of Fertilizer

### 4. Pest & Diseases:

- Incidence of Bud necrosis viral disease on Black gram crops has been reported in **moderate to severe** intensity in Guntur, Krishna and West Godavari districts of Andhra Pradesh State.
- Incidence of South American Tomato Pinworm (*Tuta absoluta*) on Tomato crop has been reported in **low** intensity in two Poly-houses with an approximate area of 500 Sq. M. in Chhajwar village of Sundernagar block of Mandi district of Himachal Pradesh State. The crop is in fruiting stage.
- Incidence of Yellow rust on Wheat crop has been reported in **traces** intensity in few places in Kangra, Bilaspur and Hamirpur districts of Himachal Pradesh State.
- Incidence of Yellow rust on Wheat crop has been reported in **traces to low** intensity in few fields in Rajbagh Tehsil of Kathua district of Jammu and Kashmir State.
- Incidence of Yellow rust on Wheat crop has been reported in **traces to low** intensity in few places in Kurukshetra and Karnal districts of Haryana State.
- Incidence of Yellow rust on Wheat crop has been reported in **trace to low** intensity in few places in Adheli village of Muzaffarabad block of Saharanpur district of Uttar Pradesh State. The crop is at vegetative to ear heading stage.
- Incidence of Yellow rust on Wheat crop has been reported in **traces to moderate** intensity in few places in Ropar, Hoshiarpur, Gurdaspur, Pathankot, SBS Nagar, SAS Nagar, Mohali and Ludhiana districts of Punjab State. The crop is at tillering to panicle initiation stage.
- Incidence of new exotic, invasive and destructive pest, Rugose spiralling whitefly (RSW), *Aleurodicus rugioeperculatus* Martin, on Coconut palm reported by ICAR-NBARI, Bangalore, in Pollachi, Coimbatore, and Anaimalai Tamil Nadu, State. The infestation has been reported in moderate intensity covering 3000 to 4000 ha.area.
- Incidence of new exotic, invasive and destructive pest, Rugose spiralling whitefly (RSW), *Aleurodicus rugioeperculatus* Martin on Coconut crop has been reported in **traces to moderate** intensity in Kolinjeparai block of Palakkad district of Kerala state.
- No shortage of Chemical / Bio-pesticides was reported from any State / UT.



5. Progressive procurement of Kharif Rice as on 03.03.2017 (lakh tonnes)

Table: 5.1

State	Total procurement in marketing season 2015-16 (Oct. – Sept.)	Progressive Procurement as on 03.03.2017	
		In Marketing season 2016-2017	In Marketing season 2015-2016
<b>Andhra Pradesh</b>	<b>43.36</b>	23.83	27.05
<b>Telangana</b>	<b>15.79</b>	11.02	10.16
<b>Chhattisgarh</b>	<b>34.42</b>	46.62	39.72
<b>Haryana</b>	<b>28.61</b>	35.70	28.61
<b>Kerala</b>	<b>3.82</b>	1.49	1.55
<b>Madhya Pradesh</b>	<b>8.49</b>	13.14	8.41
<b>Maharashtra</b>	<b>2.30</b>	2.24	1.40
<b>Odisha</b>	<b>33.69</b>	20.59	19.81
<b>Punjab</b>	<b>93.50</b>	110.44	93.49
<b>Tamil Nadu</b>	<b>11.92</b>	1.01	6.98
<b>Uttar Pradesh</b>	<b>29.10</b>	20.61	29.10
<b>Uttrakhand</b>	<b>5.98</b>	6.48	5.97
<b>West Bengal</b>	<b>15.68</b>	5.57	6.65
<b>All-India</b>	<b>342.18</b>	<b>305.55</b>	<b>285.31</b>