

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: 14.02.2017

**SUBJECT: MINUTES OF THE MEETING OF THE CROP WEATHER WATCH GROUP HELD ON
10.02.2017.**

Summary observations of the Group on Agenda Items

- Details of the mean maximum and minimum temperature during the week 02nd February, 2017 to 08th February, 2017 were as under:-

Maximum Temperature

- *Above normal by 4 to 6^oC over many parts of Arunachal Pradesh, Nagaland and some parts of Himachal Pradesh and Assam and by 2 to 4^oC over Manipur, Mizoram, many parts of Assam & Meghalaya, East Rajasthan, Madhya Pradesh, Jharkhand, Vidarbha, some parts of Arunachal Pradesh, Tripura, Himachal Pradesh, Saurashtra & Kutch, East Uttar Pradesh, Gujarat Region, Madhya Maharashtra, Marathwada, Chhattisgarh, Odisha and isolated pockets of Jammu & Kashmir, Uttarakhand, Punjab, Bihar, North Interior Karnataka, Telangana and Lakshadweep.*
- *Normal to near normal over rest of the country.*

Minimum Temperature

- *Above normal by 4 to 6^oC over some parts of Himachal Pradesh and isolated pockets of West Rajasthan and West Madhya Pradesh and by 2 to 4^oC over Haryana & Delhi, many parts of Jammu & Kashmir, Himachal Pradesh, Punjab, West Uttar Pradesh, Rajasthan, some parts of Uttarakhand, West Madhya Pradesh and isolated pockets of East Uttar Pradesh, Saurashtra & Kutch, East Madhya Pradesh, Konkan and Madhya Maharashtra.*
- *Normal to near normal over rest of the country except some parts of Odisha, Telangana and isolated pockets of Chhattisgarh, Coastal Andhra Pradesh and Tamil Nadu where it was below normal by 2 to 4^oC.*
- *In the winter season, at All-India level, the rainfall during the week (02nd February, 2017 – 08th February, 2017) has been 01% 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 96% in North West India and lower by 99% in South Peninsula and Central India, 94% in East & North East India.*

- *The cumulative rainfall in the country during the winter season i.e. 01st January to 08th February, 2017 has been 29% higher than the Long Period Average (LPA). Rainfall in the four broad geographical divisions of the country during the above period have been higher by 99% in North West India, 39% in South Peninsula and lower by 86% in East & North East India, 84% in Central India.*
- *Out of 36 met sub-divisions, 11 met subdivisions constituting 32% of the total area of the country has received large excess/excess rainfall, 03 met sub-divisions constituting 04% of the total area of the country has received normal rainfall, 04 met sub-divisions constituting 14% of the total area of the country has received deficient, 12 met sub-divisions constituting 35% 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 09th February, 2017 has been 74.98 BCM as against 58.97 BCM on 09.02.2016 (last year) and 73.48 BCM of normal (average of the last 10 years) storage. Current year's storage is 127% of last year's storage and 102% of the average of last 10 year's storage.*
- *All-India progressive procurement of Rice as on 10.02.2017 for the Kharif marketing season 2016-17 was 288.20 lakh tonnes against the procurement of 259.68 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 08th February, 2017

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

- **Rainfall during the week (02nd Feb., 2017 to 08th Feb., 2017)** Rainfall was large excess/excess in 01 subdivision, normal in 01, deficient/large deficient in 11 and no rain in 23 subdivisions out of 36 meteorological sub-divisions.
- **Cumulative rainfall (01st Jan., 2017 to 08th Feb., 2017)** Rainfall was large excess/excess in 11, normal in 03, deficient/large deficient in 16 and no rain in 06 out of 36 meteorological sub-divisions.

Table - 1.2: Weekly and Cumulative Rainfall in four regions of the country¹

| Region | Week Ending (08.02.2017) | | | | Cumulative (01.01.17 to 08.02.17) | | | |
|-------------------------|--------------------------|--------|-----------------------|------|-----------------------------------|--------|-----------------------|---------------|
| | (in mm) | | Devi- ation (%) | Cat. | (in mm) | | Devi- ation (%) | Cate- gory |
| | Actual | Normal | | | Actual | Normal | | |
| North-West India | 15.1 | 7.7 | 96 | LE | 91.4 | 45.9 | 99 | LE |
| Central India | 0.0 | 2.1 | -99 | LD | 1.7 | 10.4 | -84 | LD |
| South Peninsular India | 0.0 | 1.2 | -99 | LD | 12.6 | 9.1 | 39 | E |
| East & North-East India | 0.6 | 8.9 | -94 | LD | 4.5 | 31.3 | -86 | LD |
| Country as a whole | 4.7 | 4.8 | -1 | N | 31.9 | 24.7 | 29 | E |

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: 1st January to

| No. of Sub-Divisions with rainfall | For the period from 1 st January to | | | | | |
|---------------------------------------|--|---------------|---------------|----------------|----------------|-------------|
| | 08 FEB 2012 | 06 FEB 2013 | 05 FEB 2014 | 11 FEB 2015 | 10 FEB 2016 | 08 FEB 2017 |
| Large Excess | - | - | - | - | - | 05 |
| Excess | 09 | 08 | 08 | 14 | 03 | 06 |
| Normal | 07 | 04 | 02 | 06 | 02 | 03 |
| Total | 16 | 12 | 10 | 20 | 05 | 14 |
| Deficient | 06 | 06 | 08 | 09 | 09 | 04 |
| Large Deficient | - | - | - | - | - | 12 |
| Scanty | 10 | 17 | 16 | 07 | 17 | - |
| No rain | 04 | 01 | 02 | 00 | 05 | 06 |
| Total | 20 | 24 | 26 | 16 | 31 | 22 |
| Data Inadequate | 00 | 00 | 00 | 00 | 00 | 00 |
| TOTAL | 36 | 36 | 36 | 36 | 36 | 36 |
| All-India % Rainfall Deviation | 23% | (-) 9% | (-) 6% | (-) 13% | (-) 64% | 29% |

Source: IMD

➤ Sub-division-wise 5 days rainfall forecast from 13th Feb., 2017 to 17th Feb.,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 | | | | | | |
| | | 2 FEB | 3 FEB | 4 FEB | 5 FEB | 6 FEB | 7 FEB | 8 FEB | 2 FEB | 3 FEB | 4 FEB | 5 FEB | 6 FEB | 7 FEB | 8 FEB |
| 1 | ANDAMAN & NICOBAR ISLANDS | N | N | N | N | N | N | N | DRY | DRY | DRY | DRY | ISOL | DRY | DRY |
| 2 | ARUNACHAL PRADESH | N | N | N | N | N | N | N | ISOL | DRY | DRY | DRY | DRY | SCT | DRY |
| 3 | ASSAM & MEGHALAYA | N | N | N | N | N | N | N | DRY | ISOL | DRY | DRY | DRY | ISOL | DRY |
| 4 | NAGA,MANI,MIZO,TRIPURA | N | N | N | N | N | AAN | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 5 | SUB-HIMA.WEST BEN. & SIKKIM | N | N | N | N | N | N | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 6 | GANGETIC WEST BENGAL | N | BN | N | N | N | N | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 7 | ODISHA | N | N | N | N | N | N | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 8 | JHARKHAND | N | N | N | N | N | N | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 9 | BIHAR | N | BN | N | N | N | AAN | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 10 | EAST UTTAR PRADESH | N | N | N | N | N | N | N | DRY | DRY | DRY | DRY | ISOL | DRY | DRY |
| 11 | WEST UTTAR PRADESH | N | N | N | AAN | N | N | N | DRY | DRY | DRY | ISOL | ISOL | DRY | DRY |
| 12 | UTTARAKHAND | AN | N | AAN | MAN | AAN | AN | N | DRY | DRY | DRY | SCT | FWS | ISOL | DRY |
| 13 | HARYANA CHAND. & DELHI | N | N | AAN | MAN | AAN | N | N | DRY | DRY | DRY | ISOL | ISOL | DRY | DRY |
| 14 | PUNJAB | N | AN | AAN | MAN | AAN | N | N | DRY | DRY | DRY | ISOL | ISOL | DRY | DRY |
| 15 | HIMACHAL PRADESH | N | AAN | N | AAN | N | AN | AAN | DRY | DRY | DRY | WS | WS | ISOL | ISOL |
| 16 | JAMMU & KASHMIR | N | AAN | N | N | N | N | AAN | DRY | ISOL | DRY | WS | WS | ISOL | ISOL |
| 17 | WEST RAJASTHAN | AAN | AAN | N | N | N | N | N | DRY | DRY | DRY | ISOL | DRY | DRY | DRY |
| 18 | EAST RAJASTHAN | N | AAN | MAN | N | AN | N | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 19 | WEST MADHYA PRADESH | N | AN | N | N | N | N | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 20 | EAST MADHYA PRADESH | N | N | N | N | N | N | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 21 | GUJARAT REGION D.D. & N.H. | N | AAN | N | AAN | BN | N | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 22 | SAURASTRA KUTCH & DIU | N | AAN | N | N | N | N | BN | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 23 | KONKAN & GOA | N | N | AN | N | N | N | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 24 | MADHYA MAHARASHTRA | N | AN | N | N | N | N | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 25 | MARATHAWADA | N | AN | N | N | N | N | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 26 | VIDARBHA | N | N | N | N | 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 | BN | N | N | N | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 30 | RAYALASEEMA | N | N | N | N | BN | N | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 31 | TAMILNADU & PUDUCHERRY | N | N | N | N | N | N | N | DRY | DRY | DRY | DRY | DRY | DRY | DRY |
| 32 | COASTAL KARNATAKA | AN | AN | N | N | 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 | N | N | N | N | N | N | N | DRY | DRY | DRY | DRY | ISOL | ISOL | 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 st - 4 times the normal) | ** | VIGOROUS (R/F More than 4 times) | | |
| (ACTIVE R/F 1 st - 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) ^o C | BN | BELOW NORMAL (N-2) ^o C | AEN | APRECIABLY BELOW NORMAL (N-3, -4) ^o C | MBN | MARKEDLY BELOW NORMAL (N-5 AND BELOW) ^o C | | |
| AN | ABOVE NORMAL (N+2) ^o C | AAN | APRECIABLY ABOVE NORMAL (N+3,+4) ^o C | MAN | MARKEDLY ABOVE NORMAL (N+5 AND ABOVE) ^o C | | | | |
| * | Cold wave conditions (Departure from Normal is (-4 ^o C to -5 ^o C and -5 ^o C to -6 ^o C) | | | ** | Severe Cold wave conditions (Departure from Normal is (-6 ^o C or less and -7 ^o C or less) | | | | |

Table: 1.4

| Met-Sub-Division | 13-Feb Today | 14Feb Tue | 15Feb Wed | 16Feb Thu | 17Feb Fri |
|------------------------------|--------------|-----------|-----------|-----------|-----------|
| 1. Andaman & Nicobar Islands | ISOL | ISOL | DRY | DRY | DRY |
| 2. Arunachal Pradesh | ISOL | ISOL | DRY | DRY | DRY |
| 3. Assam & Meghalaya | DRY | DRY | DRY | DRY | DRY |
| 4. N. M. M. & T. | DRY | DRY | DRY | DRY | DRY |
| 5. S.H. West Bengal & Sikkim | ISOL | DRY | DRY | DRY | DRY |
| 6. Gangetic West Bengal | DRY | DRY | DRY | DRY | DRY |
| 7. Odisha | DRY | DRY | DRY | DRY | DRY |
| 8. Jharkhand | ISOL | DRY | DRY | DRY | DRY |
| 9. Bihar | DRY | DRY | DRY | DRY | DRY |
| 10. East Uttar Pradesh | DRY | DRY | DRY | DRY | DRY |
| 11. West Uttar Pradesh | DRY | DRY | DRY | DRY | DRY |
| 12. Uttarakhand | DRY | DRY | DRY | DRY | DRY |
| 13. Haryana, Chd & Delhi | DRY | DRY | DRY | DRY | DRY |
| 14. Punjab | DRY | DRY | DRY | DRY | DRY |
| 15. Himachal Pradesh | DRY | DRY | ISOL | ISOL | ISOL |
| 16. Jammu & Kashmir | DRY | ISOL | SCT | SCT | SCT |
| 17. West Rajsthan | DRY | DRY | DRY | DRY | DRY |
| 18. East Rajasthan | DRY | DRY | DRY | DRY | DRY |
| 19. West Madhya Pradesh | DRY | DRY | DRY | DRY | DRY |
| 20. East Madhya Pradesh | ISOL | DRY | DRY | DRY | DRY |
| 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 | DRY | DRY | DRY | DRY | DRY |
| 27. Chhattisgarh | ISOL | DRY | DRY | DRY | DRY |
| 28. Coastal Andhra Pradesh | DRY | DRY | DRY | DRY | DRY |
| 29. Telangana | DRY | DRY | DRY | DRY | DRY |
| 30. Rayalaseema | DRY | DRY | DRY | DRY | DRY |
| 31. Tamilnadu & Puducherry | ISOL | ISOL | DRY | DRY | DRY |
| 32. Coastal Karnataka | DRY | DRY | DRY | DRY | DRY |
| 33. North Interior Karnataka | DRY | DRY | DRY | DRY | DRY |
| 34. South Interior Karnataka | DRY | DRY | DRY | DRY | DRY |
| 35. Kerala | DRY | ISOL | DRY | DRY | DRY |
| 36. Lakshadweep | DRY | DRY | ISOL | DRY | DRY |

% 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 | | |

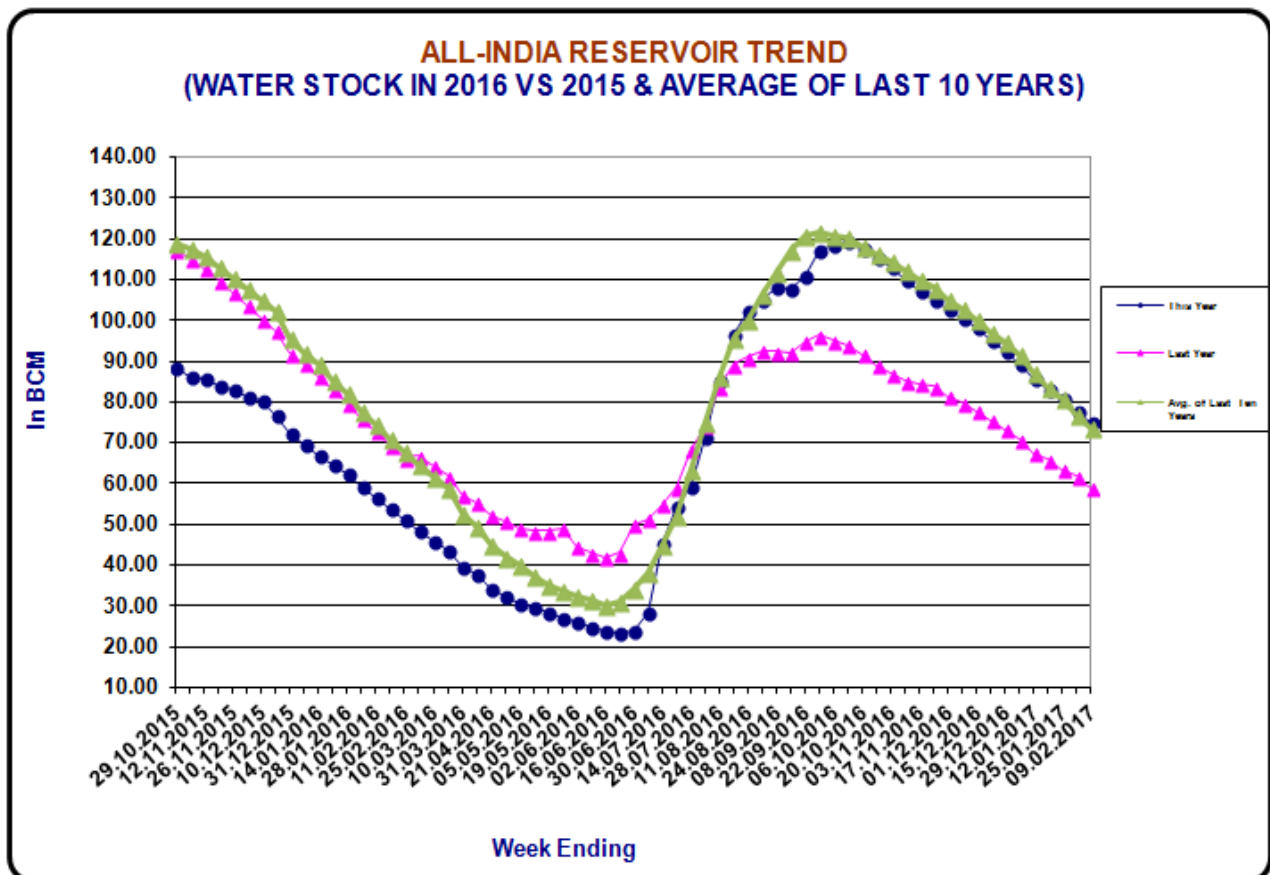
2. Reservoir Status (For the week ending on 09.02.2017)

- 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 74.98 BCM from the previous week's level of 77.68 BCM. Current storage is higher than the last year's position of 58.97 BCM and the average of last 10 year's storage of 73.48 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 | 48 | 127 | 102 |
| Last Week | 49 | 126 | 101 |
| The percentage to live capacity at FRL was 37% on 09/02/2016, 47 on 09/02/2015, 56% on 09/02/2014 and 45% on 09/02/2013. | | | |
| <i>Source: CWC</i> | | | |

There were 59 reservoirs having storage more than 80% of normal storage, 16 reservoirs having storage between 50% to 80%, 05 reservoir having storage between 30% to 50%, 11 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 10.02.2017)

(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 10.02.2017 | 12577 | 4370 | 1434 | 4028 | 1622 |
| Sales upto 10.02.2017 | 10888 | 3087 | 1066 | 2648 | 1372 |
| Closing Stock upto 10.02.2017 | 1689 | 1283 | 367 | 1380 | 250 |

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

4. Pest & Diseases:

- Incidence of Bud necrosis viral disease on Black gram crop has been reported in **trace to low** intensity in Guntur and krishna districts of Andhra Pradesh State.
- Incidence of Leaf miner on Snake gourd crop has been reported in **trace to moderate** intensity in Perambalur district of Tamilnadu State.
- Incidence of Root rot disease on Gram crop has been reported in **moderate** intensity in Churu district of Rajasthan State.
- Incidence of Yellow rust on Wheat crop has been reported in **trace** intensity in few places in Ropar, Gurdaspur, Pathankot, SBS 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 **trace 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 10.02.2017 (lakh tonnes)

Table: 5.1

| State | Total procurement in marketing season 2015-16 (Oct. – Sept.) | Progressive Procurement as on 10.02.2017 | |
|-----------------------|--|--|-------------------------------|
| | | In Marketing season 2016-2017 | In Marketing season 2015-2016 |
| Andhra Pradesh | 43.36 | 21.22 | 22.81 |
| Telangana | 15.79 | 10.99 | 10.12 |
| Chhattisgarh | 34.42 | 46.62 | 39.72 |
| Haryana | 28.61 | 35.70 | 28.61 |
| Kerala | 3.82 | 1.34 | 1.27 |
| Madhya Pradesh | 8.49 | 13.14 | 8.41 |
| Maharashtra | 2.30 | 2.00 | 1.20 |
| Odisha | 33.69 | 16.79 | 16.08 |
| Punjab | 93.50 | 110.44 | 93.49 |
| Tamil Nadu | 11.92 | 0.14 | 2.56 |
| Uttar Pradesh | 29.10 | 17.35 | 23.51 |
| Uttarkhand | 5.98 | 6.48 | 5.97 |
| West Bengal | 15.68 | 2.34 | 2.84 |
| All-India | 342.18 | 288.20 | 259.68 |