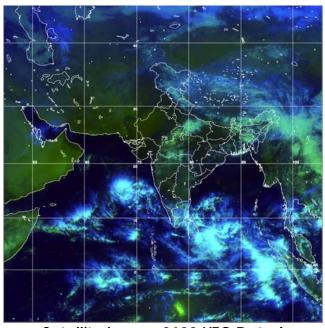


# National Agromet Advisory Bulletin THURSDAY, 18<sup>th</sup> November, 2010

(For the period 18<sup>th</sup> to 22<sup>nd</sup> November, 2010)



Satellite image 0600 UTC Dated 19th November, 2010





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Agricultural Meteorology Division
India Meteorological Department
Shivajinagar
Pune.

## **Executive Summary**

Present temperature condition is favourable for sowing of wheat, mustard gram in the northern states of the country. Besides well distributed rainfall particularly in Rajasthan, west Madhya Pradesh helped in sowing of wheat as well as other *rabi* crops like barley, gram, mustard, lentil etc. Significant rainfall due to north-east monsoon in the southern states i.e. Kerala, Tamilnadu, Karnataka and Andhra Pradesh favoured the sowing operations of rice and other *rabi* crops. More rain is expected during next five days in these states and that will further favour sowing of crops as well growth of standing crops. Farmers in most the districts in southern states are advised to postpone the harvesting operations of matured crops. Due to occurrence of rainfall in Gujarat, Maharastra during last week, sowing operations was in full swing. Clouding for extended period in these region may favour the occurrences of pests and diseases on the standing crops and in view of that farmers are advised to monitor the pests and diseases populations and also suitably advised to take plant protection measures

Most of the remaining parts of the country where irrigation facility exist, farmers are advised to undertake sowing of *rabi* crops like wheat, gram, mustard, lentil, oat, berseem, pea and planting of garlic and potato and transplanting of broccoli, cauliflower, cabbage, onion and tomato in Delhi, sowing of wheat, lentil and gram in Punjab and Haryana, sowing of wheat, gram and pea in Uttarakhand, sowing / transplanting of *boro* rice, sowing of rapeseed and mustard, niger, lentil, rajmah, pea, lathyrus, winter vegetables, like cauliflower, cabbage, brinjal and carrot and planting of potato in Assam, sowing of gram, pea, linseed and mustard and planting of potato in Chhattisgarh, sowing of mustard, wheat and cumin and planting of sugarcane in Gujarat, sowing of mustard, pulses like gram, lentil, vegetables like cabbage, cauliflower, chilli, tomato and planting of potato in West Bengal, sowing of green gram, black gram, horse gram, groundnut, mustard and sesamum in Orissa, and sarson, jowar, gram, sunflower, linseed, safflower and rainfed wheat in Maharashtra. Farmers in Chhattisgarh are advised to complete sowing of mustard within second week of November to overcome aphids infestation. In Punjab, farmers are advised to complete picking of the crop as early as possible and vacate the fields for the *rabi* season crops. The picking should be done only after the sunshine and kept in moisture free room/space to retain quality.

No major incidences of pest and diseases are reported but farmers in different parts of the country are advised to continuously monitor the pest and disease situations on crops experiencing cloudy and humid conditions.

Overall the prospect of progress of sowing of *rabi* crops and state of the standing crops in the country due to the favourable weather is expected to be good.

# Distribution of rainfall (% departure from normal) for the districts of West Madhya Pradesh, Rajasthan, Gujarat, Saurashtra & Kutch, Maharashtra, Karnataka, Kerala, Tamil Nadu and Andhra Pradesh during last five Weeks

| State/Districts      | 20.10.10     | 27.10.10     | 03.11.10     | 10.11.10     | 17.11.10     |
|----------------------|--------------|--------------|--------------|--------------|--------------|
|                      |              | Madhya I     |              |              |              |
| Badwani              | -100         | 829          | -100         | -100         | -100         |
| Betul                | -100         | 1730         | -100         | -42          | 980          |
| Bhind                | -100         | -100         | -100         | -50          | -100         |
| Bhopal               | 17           | 1843         | -100         | -100         | 4848         |
| Datia                | -100         | -100         | -100         | -100         | -100         |
| Dewas                | -100         | -100         | -100         | -100         | -100         |
| Dhar                 | -100         | -100         | -100         | -100         | 525          |
| Guna                 | 903          | 64           | -100         | -100         | 751          |
| Gwalior              | -100         | -100         | -100         | 168          | 367          |
| Harda                | -100         | -100         | -100         | -100         | 291          |
| Hosangabad           | -85          | 633          | -100         | -88          | 662          |
| Indore               | -83          | -100         | -87          | -100         | 2328         |
| Jhabua               | -100         | -100         | -100         | -100         | 2388         |
| Khandwa              | -100         | 159          | -100         | -100         | -50          |
| Khargone<br>Mandsaur | -74          | 429          | -86          | -100         | 657          |
|                      | -100         | -100         | -100         | -81          | 2772         |
| Morena<br>Neemuch    | -100<br>-100 | -100         | -100         | -100<br>-100 | -100         |
| Raisen               | -100<br>-60  | -100<br>-25  | -100<br>-100 | -100<br>-100 | -100<br>1038 |
| Raisen               | -60<br>-100  | -25          | -100<br>-100 | -100<br>-100 | 231          |
| Rajgarn              | -100         | -100<br>-80  | -100<br>-100 | -100<br>-100 | 1493         |
| Sehore               | -100         | -80<br>1458  |              |              | -60          |
| Shajapur             | -100<br>-69  | 2511         | -100<br>-20  | -100<br>-100 | 277          |
| Sheopur Kalani       | -100         |              | -100         | 244          |              |
| Shivpuri             | -100         | -100<br>-100 | -100         | 171          | 1233<br>-17  |
| Ujjain               | -47          | 163          | -84          | -100         | 89           |
| Vidisha              | -100         | 251          | -100         | -100         | 1352         |
| Viuisiia             |              | ast Rajast   |              | -100         | 1334         |
| Ajmer                | -100         | -100         | -100         | 253          | 2500         |
| Alwar                | -100         | -100         | -100         | -100         | -5           |
| Banswara             | -100         | -100         | -100         | -100         | 548          |
| Baran                | -100         | -100         | -100         | -100         | -100         |
| Bharatpur            | -100         | -100         | -100         | -100         | 300          |
| Bhilwara             | -100         | -100         | -100         | -100         | -35          |
| Bundi                | -100         | -100         | -100         | -100         | 400          |
| Chittorgarh          | -100         | -100         | -100         | -96          | 276          |
| Dausa                | -100         | -100         | -100         | -100         | -100         |
| Dholpur              | -100         | -100         | -100         | 222          | -100         |
| Dungarpur            | -100         | -100         | -100         | -100         | -100         |
| Jaipur               | -100         | -100         | -100         | 56           | 25           |
| Jhalawar             | -100         | -100         | -100         | -100         | -9           |
| Jhunjhunu            | -100         | -100         | -100         | -100         | 4992         |
| Karauli              | -100         | -100         | -100         | -100         | -100         |
| Kota                 | -95          | -100         | -100         | 6            | 4116         |
| Pratapgarh           | -100         | -100         | -100         | -100         | -100         |
| Rajsamand            | -100         | -100         | -100         | -100         | 627          |
| Sawai                | -100         | -100         | -100         | 622          | 125          |
| Sikar                | -100         | -100         | -100         | -100         | 6400         |
| Sirohi               | -100         | -100         | -100         | -100         | 469          |
| Tonk                 | -100         | -100         | -100         | -100         | -100         |
| Udaipur              | -100         | -100         | -100         | -84          | 277          |
| •                    |              | est Rajast   |              |              |              |
| Barmer               | -100         | -100         | -100         | -100         | 1632         |
| Bikaner              | -100         | -100         | -100         | -100         | 200          |
| Churu                | -100         | -100         | -100         | -100         | 3893         |
| Hanumangarh          | -100         | -100         | -100         | -100         | -100         |
| Jaisalmer            | -100         | -100         | 230          | -100         | 2440         |
| Jalore               | -100         | -100         | -81          | -63          | 2575         |
| Jodhpur              | -100         | -100         | -100         | -100         | 2900         |
| Nagaur               | -100         | -100         | -100         | -100         | -100         |
| Pali                 | -100         | -100         | -100         | -100         | 414          |
|                      |              |              |              |              |              |

| State/Districts 20.10.10 27.10.10 03.11.10 10.11.10 17.11.10 |            |           |         |      |      |  |  |  |
|--|------------|-----------|---------|------|------|--|--|--|
| Sri Ganganagar   | -100       | -100      | -100    | -100 | -100 |  |  |  |
| Sii Ganganagai   |            | ujarat Re |         | -100 | -100 |  |  |  |
| Ahmedabad  | -100       | -100      | -100    | -100 | -26  |  |  |  |
| Anand  | -89        | -100      | -100    | -100 | 108  |  |  |  |
| Banaskantha  | -100       | -100      | -100    | -100 | 79   |  |  |  |
| Baroda   | -88        | -78       | -100    | -100 | 425  |  |  |  |
| Broach   | -26        | 423       | -4      | -100 | 750  |  |  |  |
| DNH  | -100       | 978       | -100    | -100 | -100 |  |  |  |
| Dahod  | -100       | -100      | -100    | -100 | 265  |  |  |  |
| Daman  | -100       | -100      | -100    | -100 | -100 |  |  |  |
| Dangs  | 281        | -100      | -100    | -100 | 8471 |  |  |  |
| Gandhinagar  | -100       | -100      | -100    | -100 | 105  |  |  |  |
| Kheda  | -100       | -100      | -100    | -100 | 936  |  |  |  |
| Mehsana  | -100       | -100      | -100    | -100 | 163  |  |  |  |
| Narmada  | 70         | 1438      | -100    | -100 | 1300 |  |  |  |
| Navsari  | 239        | 143       | -100    | -100 | 237  |  |  |  |
| Panchmahal   | -100       | -100      | -100    | -100 | -56  |  |  |  |
| Patan  | -100       | -100      | -100    | -100 | -52  |  |  |  |
| Sabarkantha  | -100       | -100      | -96     | -100 | 1768 |  |  |  |
| Surat  | 111        | 799       | -100    | -56  | 194  |  |  |  |
| Tapi   | 495        | 21        | -100    | -100 | 1233 |  |  |  |
| Valsad   | 44         | 1079      | -100    | -100 | 90   |  |  |  |
|  | Saurashtra |           |         |      | , ,  |  |  |  |
| Amreli   | -23        | 1006      | -100    | -100 | 1434 |  |  |  |
| Bhavnagar  | -10        | 226       | -100    | -68  | 272  |  |  |  |
| Jamnagar   | 25         | -100      | -100    | -100 | 2004 |  |  |  |
| Junagarh   | 98         | 227       | 71      | -94  | 1238 |  |  |  |
| Kutch  | -100       | -100      | -100    | -67  | 2457 |  |  |  |
| Porbandar  | 1145       | 14        | -100    | -100 | 5329 |  |  |  |
| Rajkot   | -100       | -16       | -100    | -100 | 781  |  |  |  |
| Surendranagar  | -100       | 560       | -100    | -100 | 1191 |  |  |  |
| U  | I          | Maharash  | tra     |      |      |  |  |  |
|  |            | onkan &   |         |      |      |  |  |  |
| Goa  | 483        | 219       | -99     | 949  | 403  |  |  |  |
| Mumbai   | 114        | -36       | -100    | -50  | -49  |  |  |  |
| Raigad   | 277        | 79        | -100    | 53   | 766  |  |  |  |
| Ratnagiri  | 351        | 70        | -100    | 466  | 373  |  |  |  |
| Sindhudurg   | 607        | 230       | -100    | 644  | 631  |  |  |  |
| Thane  | 254        | 232       | -97     | 59   | 1038 |  |  |  |
|  | Madl       | nya Maha  | rashtra |      |      |  |  |  |
| Ahmednagar   | 86         | 327       | -100    | -39  | 253  |  |  |  |
| Dhule  | 98         | 1783      | -100    | -100 | 1147 |  |  |  |
| Jalgaon  | -34        | 432       | -100    | -100 | 870  |  |  |  |
| Kolhapur   | 76         | 48        | -89     | 243  | 188  |  |  |  |
| Nandurbar  | 208        | 2505      | -58     | -100 | 1463 |  |  |  |
| Nasik  | 82         | 512       | -99     | -2   | 351  |  |  |  |
| Pune   | 247        | 40        | -100    | 22   | 615  |  |  |  |
| Sangli   | 114        | -46       | -97     | 188  | 31   |  |  |  |
| Satara   | 195        | -33       | -100    | 143  | 137  |  |  |  |
| Solapur  | 103        | 27        | -94     | -18  | 134  |  |  |  |
| Marathwada   |            |           |         |      |      |  |  |  |
| Aurangabad   | -45        | 413       | -100    | 118  | 1094 |  |  |  |
| Beed   | 189        | 291       | -100    | -70  | 319  |  |  |  |
| Hingoli  | 278        | 8         | -100    | -100 | 630  |  |  |  |
| Jalna  | 156        | 348       | -100    | 47   | 218  |  |  |  |
| Latur  | 142        | 261       | -100    | -64  | 46   |  |  |  |
| Nanded   | 121        | 268       | -100    | -100 | 1067 |  |  |  |
| Usmanabad  | 10         | 40        | -100    | -28  | 277  |  |  |  |
| Parbhani   | 19         | 247       | -99     | -70  | 112  |  |  |  |
|  |            | Vidarbh   |         |      |      |  |  |  |
| Akola  | 225        | 321       | -100    | -88  | 1409 |  |  |  |
| -100 -00 1407  |            |           |         |      |      |  |  |  |

| Amraoti  | State/Districts | 20.10.10 | 27.10.10   | 03.11.10 | 10.11.10 | 17.11.10 |  |
|--|-----------------|----------|------------|----------|----------|----------|--|
| Buldhana   | Amraoti         | 79       | 1238       | -100     | -18      | 170      |  |
| Chandrapur         311         84         -68         760         1178           Gadchiroli         257         55         -100         **         \$81           Gondia         41         143         -100         -100         -100           Nagpur         -88         184         -100         1         2536           Warha         26         286         -100         186         2947           Washim         111         217         -100         -88         2158           Yeotmal         386         25         -100         123         4838           Karnataka           Coastal Karnataka           Dakshin           Kannada         22         403         75         108         778           Uttar Kannada         187         125         36         336         337           North Interior Karnataka           Bagalkote         87         4         -42         316         340           Belgaum         54         19         -34         377         247           Bidar         100         133         -90         60         1046 </td <td>Bhandara</td> <td>267</td> <td>-87</td> <td>-100</td> <td>**</td> <td>1554</td>   | Bhandara        | 267      | -87        | -100     | **       | 1554     |  |
| Gadchiroli         257         55         -100         **         581           Gondia         41         143         -100         -100         -100         100           Nagpur         -88         184         -100         1         2536           Wardha         26         286         -100         186         2947           Washim         111         217         -100         -88         2158           Yeotmal         386         25         -100         123         4838           Karnataka           Dakshin           Kanada         22         403         75         108           Udupi         159         441         48         158         275           Utar Kannada         187         125         36         536         337           North Interior Karnataka           Bagalkote         87         4         -42         316         340           Belgaum         54         19         -34         377         247           Bijapur         164         -46         -38         127         233           Dharwad         -23         -9<  | Buldhana        | 103      | 459        | -100     | -100     | 575      |  |
| Gondia   | Chandrapur      | 311      | 84         | -68      | 760      | 1178     |  |
| Gondia   | Gadchiroli      | 257      | 55         | -100     | **       | 581      |  |
| Nagpur   | Gondia          |          | 143        |          | -100     |          |  |
| Wardha         26         286         -100         186         2947           Washim         111         217         -100         -88         2158           Yeotmal         386         25         -100         123         4838           Karnataka           Dakshin Kannada           Kannada         22         403         75         108           Udupi         159         441         48         158         275           Uttar Kannada         187         125         36         536         337           North Interior Karnataka           Bagalkote         87         4         42         316         340           Belgaum         54         19         -34         377         247           Bidar         100         133         -90         60         1046           Bijapur         164         -46         -38         127         233           Dharwad         -23         -9         -11         439         40           Gadag         44         -44         17         639         169           Gulbarga         287         11         -15<  | Nagpur          |          |            |          | 1        |          |  |
| Washim   111   217   -100   -88   2158   Yeotmal   386   25   -100   123   4838   Karnataka   Coastal Ka |                 |          |            |          | 186      |          |  |
| Yeotmal   386   25   -100   123   4838   Karnataka   Coastal Karnataka   |                 |          |            |          |          |          |  |
| Captal Karnataka   Coastal Karnataka   Coast |                 |          |            |          |          |          |  |
| Dakshin  | 100111111       | 200      |            |          | 120      | 1000     |  |
| Cannada   Cann |                 | Coa      |            |          |          |          |  |
| Rannada  | Dakshin         | 22       | 402        |          |          | 778      |  |
| Uttar Kannada  | Kannada         | 42       | 403        | 75       | 108      |          |  |
| North Interior Karnataka   | Udupi           | 159      | 441        | 48       | 158      | 275      |  |
| North Interior Karnataka   | Uttar Kannada   | 187      | 125        | 36       |          |          |  |
| Bagalkote         87         4         -42         316         340           Belgaum         54         19         -34         377         247           Bidar         100         133         -90         60         1046           Bijapur         164         -46         -38         127         233           Dharwad         -23         -9         -11         439         40           Gadag         44         -44         17         639         169           Gulbarga         287         11         -15         147         347           Haveri         -61         -51         46         569         200           Koppal         -32         -7         4         431         414           Raichur         6         -48         17         180         97           South Interior Karnataka         Bangalore         23         -87         85         275         312           Bangalore         9         -84         135         329         343         302           Urban         9         -84         135         329         343         343         444         44         135 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>  |                 |          |            |          |          |          |  |
| Belgaum         54         19         -34         377         247           Bidar         100         133         -90         60         1046           Bijapur         164         -46         -38         127         233           Dharwad         -23         -9         -11         439         40           Gadag         44         -44         17         639         169           Gulbarga         287         11         -15         147         347           Haveri         -61         -51         46         569         200           Koppal         -32         -7         4         431         414           Raichur         6         -48         17         180         97           South Interior Karnataka           Bangalore         23         -87         85         275         312           Rural         9         -84         135         329         343           Bellary         58         34         90         465         721         Chamarajnagar         -78         -91         267         340         354           Chitradurga         21         -14<  | Bagalkote       |          |            |          | 316      | 340      |  |
| Bidar         100         133         -90         60         1046           Bijapur         164         -46         -38         127         233           Dharwad         -23         -9         -11         439         40           Gadag         44         -44         17         639         169           Gulbarga         287         11         -15         147         347           Haveri         -61         -51         46         569         200           Koppal         -32         -7         4         431         414           Raichur         6         -48         17         180         97           South Interior Karnataka           Bangalore         23         -87         85         275         312           Rural         9         -84         135         329         343         312           Chizhan         9         -84         135         329         343         312         343         343         343         343         344         344         344         344         344         344         344         344         344         344         344         <   |                 |          | 19         |          |          |          |  |
| Bijapur  |                 |          |            |          |          |          |  |
| Dharwad         -23         -9         -11         439         40           Gadag         44         -44         17         639         169           Gulbarga         287         11         -15         147         347           Haveri         -61         -51         46         569         200           Koppal         -32         -7         4         431         414           Raichur         6         -48         17         180         97           South Interior Karnataka           Bangalore         23         -87         85         275           Bellary         58         34         90         465         721           Chamarajnagar         -78         -91         267         340         354           Chitradurga         21         -14         393         636         228           Davangere         -20         39         108         509         499           Hassan         -53         59         138         306         444           Kolar         -43         -42         232         379         210           Mandya         -53         -9  |                 |          |            |          |          |          |  |
| Gadag         44         -44         17         639         169           Gulbarga         287         11         -15         147         347           Haveri         -61         -51         46         569         200           Koppal         -32         -7         4         431         414           Raichur         6         -48         17         180         97           South Interior Karnataka           Bangalore         23         -87         85         275         312           Rural         23         -87         85         275         312           Bangalore         9         -84         135         329         329           Bellary         58         34         90         465         721           Chamarajnagar         -78         -91         267         340         354           Chickmagalur         -23         62         6         384         645           Chitradurga         21         -14         393         636         228           Davangere         -20         39         108         509         499           Hassan <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td></t<>   |                 |          |            |          |          |          |  |
| Gulbarga         287         11         -15         147         347           Haveri         -61         -51         46         569         200           Koppal         -32         -7         4         431         414           Raichur         6         -48         17         180         97           South Interior Karnataka           Bangalore         23         -87         85         275         312           Rural         9         -84         135         329         343           Bellary         58         34         90         465         721         721           Chamarajnagar         -78         -91         267         340         354         645         645         721         62         6         384         645   |                 |          |            |          |          |          |  |
| Haveri   Color   Col |                 |          |            |          |          |          |  |
| Koppal         -32         -7         4         431         414           Raichur         6         -48         17         180         97           South Interior Karnataka           Bangalore Rural         23         -87         85         275           Bangalore Urban         9         -84         135         329           Bellary         58         34         90         465         721           Chamarajnagar         -78         -91         267         340         354           Chickmagalur         -23         62         6         384         645           Chitradurga         21         -14         393         636         228           Davangere         -20         39         108         509         499           Hassan         -53         59         138         306         444           Kolagu         -42         63         270         271         184           Kolar         -43         -42         232         379         210           Mandya         -53         -93         228         479         189           Mysore         -75         -55<   |                 |          |            |          |          |          |  |
| Raichur         6         -48         17         180         97           South Interior Karnataka           Bangalore Rural         23         -87         85         275           Bangalore Urban         9         -84         135         329           Bellary         58         34         90         465         721           Chamarajnagar         -78         -91         267         340         354           Chickmagalur         -23         62         6         384         645           Chitradurga         21         -14         393         636         228           Davangere         -20         39         108         509         499           Hassan         -53         59         138         306         444           Kolar         -43         -42         232         379         210           Mandya         -53         -93         228         479         189           Mysore         -75         -55         443         630         228           Shimoga         -23         70         43         428         453           Tumkur         -12         -   |                 |          |            |          |          |          |  |
| South Interior Karnataka   Bangalore Rural   23   -87   85   275     Bangalore Urban   9   -84   135   329     Bellary   58   34   90   465   721   Chamarajnagar   -78   -91   267   340   354   Chickmagalur   -23   62   6   384   645   Chitradurga   21   -14   393   636   228   Davangere   -20   39   108   509   499   Hassan   -53   59   138   306   444   Kodagu   -42   63   270   271   184   Kolar   -43   -42   232   379   210   Mandya   -53   -93   228   479   189   Mysore   -75   -55   443   630   228   Shimoga   -23   70   43   428   453   Tumkur   -12   -90   332   327   203   Kerala   Alappuzha   44   -28   -56   20   104   Kannur   112   122   666   69   350   Kollam   -26   -68   -49   30   43   Kotayam   32   -43   -35   40   84   Kozhikode   6   207   8   -36   90   Malappuram   -30   42   89   7   90   Palakkad   5   -12   68   53   117   Pathanamthitta   -10   -74   -22   65   254   Thiruvanantapu ram   -77   -93   -65   -22   65   554   Thirissur   78   10   140   98   169   |                 |          | -          |          |          |          |  |
| Bangalore Rural         23         -87         85         275           Bangalore Urban         9         -84         135         329           Bellary         58         34         90         465         721           Chamarajnagar         -78         -91         267         340         354           Chickmagalur         -23         62         6         384         645           Chitradurga         21         -14         393         636         228           Davangere         -20         39         108         509         499           Hassan         -53         59         138         306         444           Kodagu         -42         63         270         271         184           Kolar         -43         -42         232         379         210           Mandya         -53         -93         228         479         189           Mysore         -75         -55         443         630         228           Shimoga         -23         70         43         428         453           Tumkur         -12         -90         332         327         203  | Kaichur         |          |            |          | 190      | 91       |  |
| Rural         23         -87         85         275           Bangalore Urban         9         -84         135         329           Bellary         58         34         90         465         721           Chamarajnagar         -78         -91         267         340         354           Chickmagalur         -23         62         6         384         645           Chitradurga         21         -14         393         636         228           Davangere         -20         39         108         509         499           Hassan         -53         59         138         306         444           Kodagu         -42         63         270         271         184           Kolar         -43         -42         232         379         210           Mandya         -53         -93         228         479         189           Mysore         -75         -55         443         630         228           Shimoga         -23         70         43         428         453           Tumkur         -12         -90         332         327         203  | D 1             | South    | interior K | arnataka |          | 212      |  |
| Bangalore<br>Urban         9         -84         135         329           Bellary         58         34         90         465         721           Chamarajnagar         -78         -91         267         340         354           Chickmagalur         -23         62         6         384         645           Chitradurga         21         -14         393         636         228           Davangere         -20         39         108         509         499           Hassan         -53         59         138         306         444           Kodagu         -42         63         270         271         184           Kolar         -43         -42         232         379         210           Mandya         -53         -93         228         479         189           Mysore         -75         -55         443         630         228           Shimoga         -23         70         43         428         453           Tumkur         -12         -90         332         327         203           Ernakulam         68         -13         0         88   |                 | 23       | -87        | 0.7      | 0==      | 312      |  |
| Urban         9         -84         135         329           Bellary         58         34         90         465         721           Chamarajnagar         -78         -91         267         340         354           Chickmagalur         -23         62         6         384         645           Chickmagalur         -23         70         138         306         444           Kodagu         -42         63         270         271         184           Kolar         -43         -42         232         379         210           Mandya         -53         -93         228         479         189           Mysore         -75         -55         443         630         228           Shimoga         -23         70         43         428         453           Tumkur         -12         -90         332         327  |                 |          |            | 85       | 275      | 2.42     |  |
| Bellary         58         34         90         465         721           Chamarajnagar         -78         -91         267         340         354           Chickmagalur         -23         62         6         384         645           Chickmagalur         -20         39         108         509         499           Hassan         -53         59         138         306         444           Kodagu         -42         63         270         271         184           Kodagu         -42         63         270         271         184           Kolar         -43         -42         232         379         210           Mandya         -53         -93         228         479         189           Mysore         -75         -55         443         630         228           Shimoga         -23         70         43   |                 | 9        | -84        | 105      | 220      | 343      |  |
| Chamarajnagar         -78         -91         267         340         354           Chickmagalur         -23         62         6         384         645           Chitradurga         21         -14         393         636         228           Davangere         -20         39         108         509         499           Hassan         -53         59         138         306         444           Kodagu         -42         63         270         271         184           Kolar         -43         -42         232         379         210           Mandya         -53         -93         228         479         189           Mysore         -75         -55         443         630         228           Shimoga         -23         70         43         428         453           Tumkur         -12         -90         332         327         203           Kerala           Alappuzha         44         -28         -56         20         104           Kannur         112         122         66         69         350           Ernakulam         68 <t< td=""><td></td><td>=0</td><td>2.4</td><td></td><td></td><td></td></t<>   |                 | =0       | 2.4        |          |          |          |  |
| Chickmagalur         -23         62         6         384         645           Chitradurga         21         -14         393         636         228           Davangere         -20         39         108         509         499           Hassan         -53         59         138         306         444           Kodagu         -42         63         270         271         184           Kolar         -43         -42         232         379         210           Mandya         -53         -93         228         479         189           Mysore         -75         -55         443         630         228           Shimoga         -23         70         43         428         453           Tumkur         -12         -90         332         327         203           Kerala           Alappuzha         44         -28         -56         20         104           Kannur         112         122         66         69         350           Ernakulam         68         -13         0         88         272           Idukki         -25  |                 |          |            |          |          |          |  |
| Chitradurga         21         -14         393         636         228           Davangere         -20         39         108         509         499           Hassan         -53         59         138         306         444           Kodagu         -42         63         270         271         184           Kolar         -43         -42         232         379         210           Mandya         -53         -93         228         479         189           Mysore         -75         -55         443         630         228           Shimoga         -23         70         43         428         453           Tumkur         -12         -90         332         327         203           Kerala           Alappuzha         44         -28         -56         20         104           Kannur         112         122         66         69         350           Ernakulam         68         -13         0         88         272           Idukki         -25         -53         24         50         65           Kasaragod         8         2   |                 |          |            |          |          |          |  |
| Davangere         -20         39         108         509         499           Hassan         -53         59         138         306         444           Kodagu         -42         63         270         271         184           Kolar         -43         -42         232         379         210           Mandya         -53         -93         228         479         189           Mysore         -75         -55         443         630         228           Shimoga         -23         70         43         428         453           Tumkur         -12         -90         332         327         203           Kerala           Alappuzha         44         -28         -56         20         104           Kannur         112         122         66         69         350           Ernakulam         68         -13         0         88         272           Idukki         -25         -53         24         50         65           Kasaragod         8         296         -85         15         530           Kollam         -26         -68 <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td>   | •               |          |            |          |          |          |  |
| Hassan         -53         59         138         306         444           Kodagu         -42         63         270         271         184           Kolar         -43         -42         232         379         210           Mandya         -53         -93         228         479         189           Mysore         -75         -55         443         630         228           Shimoga         -23         70         43         428         453           Tumkur         -12         -90         332         327         203           Kerala           Alappuzha         44         -28         -56         20         104           Kannur         112         122         66         69         350           Ernakulam         68         -13         0         88         272           Idukki         -25         -53         24         50         65           Kasaragod         8         296         -85         15         530           Kollam         -26         -68         -49         30         43           Kottayam         32         -43   |                 |          |            |          |          |          |  |
| Kodagu         -42         63         270         271         184           Kolar         -43         -42         232         379         210           Mandya         -53         -93         228         479         189           Mysore         -75         -55         443         630         228           Shimoga         -23         70         43         428         453           Tumkur         -12         -90         332         327         203           Kerala           Alappuzha         44         -28         -56         20         104           Kannur         112         122         66         69         350           Ernakulam         68         -13         0         88         272           Idukki         -25         -53         24         50         65           Kasaragod         8         296         -85         15         530           Kollam         -26         -68         -49         30         43           Kottayam         32         -43         -35         40         84           Kozhikode         6         207   |                 |          |            |          |          |          |  |
| Kolar         -43         -42         232         379         210           Mandya         -53         -93         228         479         189           Mysore         -75         -55         443         630         228           Shimoga         -23         70         43         428         453           Tumkur         -12         -90         332         327         203           Kerala           Alappuzha         44         -28         -56         20         104           Kannur         112         122         66         69         350           Ernakulam         68         -13         0         88         272           Idukki         -25         -53         24         50         65           Kasaragod         8         296         -85         15         530           Kollam         -26         -68         -49         30         43           Kottayam         32         -43         -35         40         84           Kozhikode         6         207         8         -36         90           Malappuram         -30         42  | Hassan          | -53      | 59         |          |          |          |  |
| Mandya         -53         -93         228         479         189           Mysore         -75         -55         443         630         228           Shimoga         -23         70         43         428         453           Tumkur         -12         -90         332         327         203           Kerala           Alappuzha         44         -28         -56         20         104           Kannur         112         122         66         69         350           Ernakulam         68         -13         0         88         272           Idukki         -25         -53         24         50         65           Kasaragod         8         296         -85         15         530           Kollam         -26         -68         -49         30         43           Kottayam         32         -43         -35         40         84           Kozhikode         6         207         8         -36         90           Malappuram         -30         42         89         7         90           Palakkad         5         -12   | Kodagu          | -42      | 63         | 270      | 271      | 184      |  |
| Mysore         -75         -55         443         630         228           Shimoga         -23         70         43         428         453           Tumkur         -12         -90         332         327         203           Kerala           Alappuzha         44         -28         -56         20         104           Kannur         112         122         66         69         350           Ernakulam         68         -13         0         88         272           Idukki         -25         -53         24         50         65           Kasaragod         8         296         -85         15         530           Kollam         -26         -68         -49         30         43           Kottayam         32         -43         -35         40         84           Kozhikode         6         207         8         -36         90           Malappuram         -30         42         89         7         90           Palakkad         5         -12         68         53         117           Pathanamthitta         -10         -74 </td <td>Kolar</td> <td>-43</td> <td>-42</td> <td>232</td> <td>379</td> <td>210</td>  | Kolar           | -43      | -42        | 232      | 379      | 210      |  |
| Shimoga         -23         70         43         428         453           Tumkur         -12         -90         332         327         203           Kerala           Alappuzha         44         -28         -56         20         104           Kannur         112         122         66         69         350           Ernakulam         68         -13         0         88         272           Idukki         -25         -53         24         50         65           Kasaragod         8         296         -85         15         530           Kollam         -26         -68         -49         30         43           Kottayam         32         -43         -35         40         84           Kozhikode         6         207         8         -36         90           Malappuram         -30         42         89         7         90           Palakkad         5         -12         68         53         117           Pathanamthitta         -10         -74         -22         65         254           Thrissur         78         10 <td>Mandya</td> <td>-53</td> <td></td> <td>228</td> <td>479</td> <td>189</td>  | Mandya          | -53      |            | 228      | 479      | 189      |  |
| Shimoga         -23         70         43         428         453           Tumkur         -12         -90         332         327         203           Kerala           Alappuzha         44         -28         -56         20         104           Kannur         112         122         66         69         350           Ernakulam         68         -13         0         88         272           Idukki         -25         -53         24         50         65           Kasaragod         8         296         -85         15         530           Kollam         -26         -68         -49         30         43           Kottayam         32         -43         -35         40         84           Kozhikode         6         207         8         -36         90           Malappuram         -30         42         89         7         90           Palakkad         5         -12         68         53         117           Pathanamthitta         -10         -74         -22         65         254           Thrissur         78         10 <td></td> <td>-75</td> <td>-55</td> <td>443</td> <td>630</td> <td>228</td>   |                 | -75      | -55        | 443      | 630      | 228      |  |
| Tumkur         -12         -90         332         327         203           Kerala           Alappuzha         44         -28         -56         20         104           Kannur         112         122         66         69         350           Ernakulam         68         -13         0         88         272           Idukki         -25         -53         24         50         65           Kasaragod         8         296         -85         15         530           Kollam         -26         -68         -49         30         43           Kottayam         32         -43         -35         40         84           Kozhikode         6         207         8         -36         90           Malappuram         -30         42         89         7         90           Palakkad         5         -12         68         53         117           Pathanamthitta         -10         -74         -22         65         254           Thiruvanantapu ram         -77         -93         -65         -22         65           Thiruvanantapu ram  | •               | -23      | 70         |          | 428      |          |  |
| Kerala           Alappuzha         44         -28         -56         20         104           Kannur         112         122         66         69         350           Ernakulam         68         -13         0         88         272           Idukki         -25         -53         24         50         65           Kasaragod         8         296         -85         15         530           Kollam         -26         -68         -49         30         43           Kottayam         32         -43         -35         40         84           Kozhikode         6         207         8         -36         90           Malappuram         -30         42         89         7         90           Palakkad         5         -12         68         53         117           Pathanamthitta         -10         -74         -22         65         254           Thiruvanantapu ram         -77         -93         -65         -22         65           Thrissur         78         10         140         98         169  |                 |          |            | 332      | 327      |          |  |
| Alappuzha         44         -28         -56         20         104           Kannur         112         122         66         69         350           Ernakulam         68         -13         0         88         272           Idukki         -25         -53         24         50         65           Kasaragod         8         296         -85         15         530           Kollam         -26         -68         -49         30         43           Kottayam         32         -43         -35         40         84           Kozhikode         6         207         8         -36         90           Malappuram         -30         42         89         7         90           Palakkad         5         -12         68         53         117           Pathanamthitta         -10         -74         -22         65         254           Thiruvanantapu ram         -77         -93         -65         -22         65           Thrissur         78         10         140         98         169   |                 |          |            |          |          |          |  |
| Kannur         112         122         66         69         350           Ernakulam         68         -13         0         88         272           Idukki         -25         -53         24         50         65           Kasaragod         8         296         -85         15         530           Kollam         -26         -68         -49         30         43           Kottayam         32         -43         -35         40         84           Kozhikode         6         207         8         -36         90           Malappuram         -30         42         89         7         90           Palakkad         5         -12         68         53         117           Pathanamthitta         -10         -74         -22         65         254           Thiruvanantapu ram         -77         -93         -65         -22         65           Thrissur         78         10         140         98         169   | Alappuzha       | 44       |            | -56      | 20       | 104      |  |
| Ernakulam         68         -13         0         88         272           Idukki         -25         -53         24         50         65           Kasaragod         8         296         -85         15         530           Kollam         -26         -68         -49         30         43           Kottayam         32         -43         -35         40         84           Kozhikode         6         207         8         -36         90           Malappuram         -30         42         89         7         90           Palakkad         5         -12         68         53         117           Pathanamthitta         -10         -74         -22         65         254           Thiruvanantapu ram         -77         -93         -65         -22         65           Thrissur         78         10         140         98         169  |                 |          |            |          |          |          |  |
| Idukki         -25         -53         24         50         65           Kasaragod         8         296         -85         15         530           Kollam         -26         -68         -49         30         43           Kottayam         32         -43         -35         40         84           Kozhikode         6         207         8         -36         90           Malappuram         -30         42         89         7         90           Palakkad         5         -12         68         53         117           Pathanamthitta         -10         -74         -22         65         254           Thiruvanantapu ram         -77         -93         -65         -22         65           Thrissur         78         10         140         98         169  |                 |          |            |          |          |          |  |
| Kasaragod         8         296         -85         15         530           Kollam         -26         -68         -49         30         43           Kottayam         32         -43         -35         40         84           Kozhikode         6         207         8         -36         90           Malappuram         -30         42         89         7         90           Palakkad         5         -12         68         53         117           Pathanamthitta         -10         -74         -22         65         254           Thiruvanantapu ram         -77         -93         -65         -22         65           Thrissur         78         10         140         98         169  |                 |          |            |          |          |          |  |
| Kollam         -26         -68         -49         30         43           Kottayam         32         -43         -35         40         84           Kozhikode         6         207         8         -36         90           Malappuram         -30         42         89         7         90           Palakkad         5         -12         68         53         117           Pathanamthitta         -10         -74         -22         65         254           Thiruvanantapu ram         -77         -93         -65         -22         65           Thrissur         78         10         140         98         169   |                 |          |            |          |          |          |  |
| Kottayam         32         -43         -35         40         84           Kozhikode         6         207         8         -36         90           Malappuram         -30         42         89         7         90           Palakkad         5         -12         68         53         117           Pathanamthitta         -10         -74         -22         65         254           Thiruvanantapu ram         -77         -93         -65         -22         65           Thrissur         78         10         140         98         169  |                 |          |            |          |          |          |  |
| Kozhikode         6         207         8         -36         90           Malappuram         -30         42         89         7         90           Palakkad         5         -12         68         53         117           Pathanamthitta         -10         -74         -22         65         254           Thiruvanantapu ram         -77         -93         -65         -22         65           Thrissur         78         10         140         98         169  |                 |          |            |          |          |          |  |
| Malappuram         -30         42         89         7         90           Palakkad         5         -12         68         53         117           Pathanamthitta         -10         -74         -22         65         254           Thiruvanantapu ram         -77         -93         -65         -22         65           Thrissur         78         10         140         98         169   |                 |          |            |          |          |          |  |
| Palakkad         5         -12         68         53         117           Pathanamthitta         -10         -74         -22         65         254           Thiruvanantapu ram         -77         -93         -65         -22         65           Thrissur         78         10         140         98         169   |                 |          |            |          |          |          |  |
| Pathanamthitta         -10         -74         -22         65         254           Thiruvanantapu ram         -77         -93         -65         -22         65           Thrissur         78         10         140         98         169  |                 |          |            |          |          |          |  |
| Thiruvanantapu ram -77 -93 -65 -22 65 Thrissur 78 10 140 98 169  |                 |          |            |          |          |          |  |
| ram -77 -93 -65 -22 Thrissur 78 10 140 98 169  |                 | -10      | -74        | -22      | 65       |          |  |
|  | ram             |          |            |          | <u>'</u> |          |  |
| Wyanad -76 -54 93 166 111  |                 | 78       | 10         |          |          |          |  |
|  | Wyanad          | -76      | -54        | 93       | 166      | 111      |  |

| State/Districts | 20.10.10  | 27.10.10  | 03.11.10 | 10.11.10   | 17.11.10 |  |
|-----------------|-----------|-----------|----------|------------|----------|--|
| GI :            |           | Tamil Nac |          | 10         | 4=       |  |
| Chennai         | -44       | -98       | 41       | -13        | -47      |  |
| Coimbatore      | -99       | -69       | 202      | 78         | 4        |  |
| Cuddalore       | -79       | -71       | 167      | -16        | -48      |  |
| Dharmapuri      | -13       | -33       | 264      | 198        | 168      |  |
| Dindigul        | -83       | -9        | 143      | 147        | -3       |  |
| Erode           | -93       | -53       | 164      | 171        | 105      |  |
| Kanchipuram     | -91       | -27       | 51       | 4          | -1       |  |
| Kanyakumari     | -92       | -96       | -46      | -7         | 143      |  |
| Karur           | -90       | -41       | 128      | 206        | 31       |  |
| Krishnagiri     | -24       | -50       | 322      | 265        | 56       |  |
| Madurai         | -74       | -18       | 110      | 186        | 305      |  |
| Nagapattinam    | -74       | -99       | 58       | -38        | -84      |  |
| Namakkal        | -72       | -64       | 298      | 131        | 103      |  |
| Nilgiris        | -71       | -30       | 139      | 47         | 138      |  |
| Perambalur      | -17       | -71       | 209      | 41         | -1       |  |
| Pondicherry     | -48       | -26       | 54       | 107        | -34      |  |
| Pudukottai      | -37       | -67       | -27      | -34        | -12      |  |
| Ramanathapuram  | -92       | -67       | 76       | -57        | 75       |  |
| Salem           | -54       | -41       | 325      | 129        | 179      |  |
| Sivaganga       | -73       | -85       | 88       | -41        | 155      |  |
| Thanjavur       | -35       | -70       | 102      | -12        | -6       |  |
| Theni           | -93       | -74       | 70       | 43         | 7        |  |
| Tirunelveli     | -99       | -92       | -13      | -45        | 14       |  |
| Tiruvallur      | -85       | -72       | 124      | -11        | -14      |  |
| Tiruvannamalai  | -67       | -10       | 280      | 151        | -26      |  |
| Tiruvannanaaa   | -67       | -85       | 122      | -21        | -28      |  |
|                 |           |           |          |            |          |  |
| Tuticorin       | -94       | -81       | 18       | -60        | 13       |  |
| Trichy          | -56       | -59       | 70       | 23         | -28      |  |
| Vellore         | -26       | -53       | 184      | 163        | 19       |  |
| Villupuram      | -57       | -41       | 203      | 121        | 45       |  |
| Virudhunagar    | -91       | -80       | 205      | 60         | -32      |  |
| Andhra Pradesh  |           |           |          |            |          |  |
|                 |           | l Andhra  |          |            |          |  |
| East Godavari   | -68       | -28       | 1113     | 227        | 595      |  |
| Guntur          | -36       | 10        | 172      | 62         | -22      |  |
| Krishna         | -34       | 98        | 460      | 13         | 172      |  |
| Nellore         | -91       | -53       | 264      | 51         | 59       |  |
| Prakasam        | -61       | -33       | 179      | 138        | 6        |  |
| Sirkakulam      | 77        | 0         | 203      | 397        | -46      |  |
| Visakhapatnam   | -67       | -28       | 751      | 185        | 407      |  |
| Vizianagram     | -21       | 39        | 396      | 145        | 323      |  |
| West Godavari   | -52       | -9        | 661      | 88         | 754      |  |
|                 |           | Telangan  | a        |            |          |  |
| Adilabad        | 375       | 286       | -52      | 297        | 1348     |  |
| Hyderabad       | 72        | -20       | -19      | 167        | 48       |  |
| Karimnagar      | 263       | 349       | 21       | 235        | 303      |  |
| Khammam         | 54        | 214       | 301      | 118        | 129      |  |
| Mehabubnagar    | 63        | -56       | 0        | 110        | 19       |  |
| Medak           | 321       | 70        | 45       | 42         | 3        |  |
| Nalgonda        | -5        | 110       | 112      | 212        | 13       |  |
| Nizamabad       | 556       | 277       | -100     | 340        | 1016     |  |
| Rangareddy      | 80        | 148       | 50       | 99         | 176      |  |
| Warangal        | 95        | 193       | 2        | 102        | 147      |  |
| vv ai aiigai    |           |           |          | 102        | 147      |  |
|                 |           | Rayalasee |          | <b>720</b> | 200      |  |
| A mant          |           | E A       |          |            |          |  |
| Anantapur       | 23        | 54        | 494      | 529        | 208      |  |
| Chittoor        | 23<br>-25 | -48       | 235      | 185        | 88       |  |
|                 | 23        |           |          |            |          |  |

#### LEGEND

EXCESS 20% OR MORE

NORMAL +19% TO - 19%

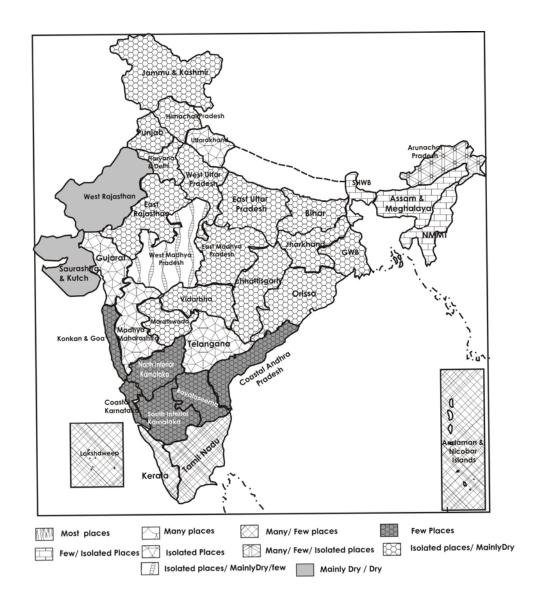
DEFICIENT - 20% TO - 59%

SCANTY - 60% TO - 99%

■ NO RAIN - 100%

•• DATA NOT AVAILABLE

Weather Forecast (Valid upto 0830 hours of 21st November, 2010)



# Weather Outlook (upto 0830 hours IST of $23^{rd}$ November, 2010)

• Fairly widespread rainfall activity would occur over south peninsular India.

### **Zonewise Agromet Advisories**

#### EAST INDIA [JHARKHAND, BIHAR, ORISSA, WEST BENGAL & SIKKIM]

- Realised Rainfall: No significant rain occurred in most of the districts of this region.
- Rainfall Forecast: Isolated rain or mainly dry weather will occur in Orissa, Bihar and Jharkhand during next three days and at isolated places during next 48 hours in Sub Himalayan West Bengal and Sikkim and at a few places thereafter.

#### • Major Crops:

- ➤ Kharif rice (grain maturity / harvesting), black gram (maturity / harvesting), kulthi (pod formation), gram, lentil and peas (sowing / early vegetative), mustard, sarson and sunflower (sowing / early vegetative), maize and wheat (sowing), potato (planting), vegetables like cauliflower, cabbage, chillies, tomato, Palak, carrot, radish, khnolkhol, turnip, beet etc. (sowing / early vegetative / vegetative) in Bihar.
- ➤ kharif rice grain formation / early maturiy / harvesting), sesamum (maturity / harvesting), groundnut (maturity / harvesting), urd, green gram, and niger (maturity / harvesting), pegion pea (flowering / pod formation), kulthi (pod formation) and potato (planting), Onion, toria, mustard, pea, gram, lentil, wheat, barley, linseed etc. (sowing / early vegetative), tomato, cabbage and cauliflower (nursery sowing / transplanting / early vegetative), chilli and brinjal (nursery sowing / transplanting) in Jharkhand.
- ➤ Rice (grain formation / early maturity / maturity / harvesting), *kharif* groundnut (maturity / harvesting), *kharif* pulses, soybean, sesamum and ragi (maturity / harvesting), cotton (flowering / boll formation / picking), *rabi* vegetable crops (sowing / germination / early vegetative / vegetative) in Orissa.
- ➤ Sugarcane (cane development), *rabi* vegetable crops (sowing / germination / early vegetative / vegetative), *aman* rice (grain formation / early maturity / maturity), pulses (maturity / harvesting), arhar (flowering / pod formation), sesame (maturity / harvesting) and groundnut (maturity / harvesting) in West Bengal.
- Large cardamom (capsule / grain maturity / harvesting), orange (fruit maturity / harvesting), wheat (sowing / germination / seedling / crown root initiation), *rabi* potato (sowing / germination), ginger (maturity / harvesting), rice (flowering / milk and grain formation / maturity), *rabi* vegetable (transplanting / vegetative) and mustard (sowing / germination) in Sikkim.

#### Advisories:

- As no significant rainfall occurred in the region during last week and no significant rainfall is likely for the next three days, apply irrigation to the standing crops in these regions.
- Taking the advantage of dry weather, farmers in West Bengal are advised to undertake harvesting of aman rice, sesame and groundnut.
- ➤ In West Bengal, farmers are advised to undertake planting of potato and sowing of mustard, wheat, pulses like gram, lentil etc. and lathyrus as piara crop in standing rice crop, transplanting of vegetables like cabbage, cauliflower, chilli, tomato etc.
- Farmers are advised to undertake sowing of maize, wheat, pulses like gram, lentil and peas, oilseed crops like mustard, sarson and sunflower, vegetables like cauliflower, cabbage, chillies, tomato, Palak, carrot, radish, knolkhol, turnip, beet etc. and planting of potato (planting) in Bihar.
- Farmers in Bihar are advised to harvest the matured *kharif* crops like rice, black gram etc.
- Farmers in Sikkim are advised to undertake sowing of wheat and mustard, planting of *rabi* potato and transplanting of *rabi* vegetable.
- Farmers in Jharkhand are advised to harvest the matured *kharif* crops like rice, sesamum, groundnut, urd, green gram and niger.
- Farmers in Jharkhand are advised to undertake land preparation and sowing of onion, toria, wheat, barley, peas, mustard, gram, lentil and linseed and planting of potato and sowing for raising seedlings and transplanting of vegetables like tomato, cauliflower, cabbage and also transplanting of chilli and brinjal during this period.
- Farmers in Orissa are advised to undertake sowing of *rabi* green gram, black gram, groundnut, mustard, sunflower, green pea, nursery sowing of onion and vegetables like garden pea, carrot, radish etc. and nursery sowing and transplanting of vegetables like tomato, brinjal, cabbage, cauliflower etc.

- Recommended varieties of crops to be sown in different States of the region are mentioned in Annexure I.
- ➤ Due to prevailing cloudy weather, root-rot of cabbage and cauliflower became prevalent in New Alluvial Zone of West Bengal. Apply Karjet @ 2 g per litre of water or Blitox or Fitolan @ 3 to 5 g per litre of water at the collar region.

#### NORTHEAST INDIA [ARUNACHAL PRADESH, NMM & T, ASSAM, MEGHALAYA]

- Realised Rainfall: No significant rain occurred over most of the districts in the region during last week.
- Rainfall Forecast: Rain is likely at a few places in Arunachal Pradesh during next 48 hours and at many places thereafter. Isolated rainfall is likely during next 48 hours and at many places thereafter in the remaining region.

#### Major Crops:

- ➤ Rabi vegetables (nursery sowing / transplanting / germination / early vegetative), sugarcane (cane development), sali rice (harvesting), arhar (flowering / pod formation), sesamum (maturity / harvesting) and black gram and green gram (pod formation / maturity), rapeseed and mustard (sowing / seedling / early vegetative), potato (planting/seedling), jute and mesta (harvesting), boro rice (nursery preparation & sowing) in Assam
- ➤ Rice (harvesting), *rabi* vegetables like cauliflower, cabbage, tomato etc. (nursery sowing / transplanting / early vegetative), pea and carrot (sowing), orange (fruiting), ginger and turmeric (vegetative), mustard (sowing) and potato (planting / seedling) in Arunachal Pradesh.
- Aman rice (grain formation / maturity / harvesting), toria, lentil, red gram (sowing) and rabi vegetables (sowing / germination / transplanting / early vegetative / vegetative) in Tripura.
- > Sali rice (grain formation / maturity / harvesting), boro rice (nursery sowing), wheat (sowing), rabi vegetables (nursery sowing / transplanting / early vegetative / vegetative) in Meghalaya.

#### Advisory:

- ➤ Postpone irrigation in Assam and Arunachal as rainfall is likely during next 3 days.
- As rainfall is likely after 48 hours, farmers are advised to harvest the matured *kharif* crops like rice, *kharif* pulses etc. in Assam and Arunachal Pradesh immediately.
- Farmers in Assam are advised to undertake sowing of rapeseed and mustard, planting of potato and nursery sowing of winter vegetables in Hills Zone, planting of potato and sowing of rapeseed and mustard, niger, lentil and pea in Lower Bramhaputra Valley Zone, sowing of rapeseed and mustard and planting of potato in Upper Bramhaputra Valley Zone, sowing of rapeseed and mustard and nursery sowing of winter vegetables in Barak Valley Zone, sowing of *rabi* pulses like lentil, rajmah, pea, lathyrus etc. and oilseeds like rapeseed, mustard, linseed and niger etc., vegetables like cauliflower, cabbage, brinjal and carrot and planting of potato in Central Bramhaputra Valley Zone and sowing of *boro* rice and rapeseed and mustard and vegetables like knolkhol, radish, brinjal, carrot and tomato in North Bank Plain Zone.
- Farmers in Arunachal Pradesh are advised to undertake sowing of mustard, nursery sowing and transplanting of hybrid tomato, cauliflower and cabbage and also to undertake sowing of carrot and pea. Farmers are also advised to prepare field for potato and undertake planting.
- Farmers in Tripura are advised to undertake nursery sowing of *boro* rice and sowing of other crops like toria, pulses like, lentil, red gram, greem gram and black gram and prepare land for sowing of potato.
- Farmers in Meghalaya are advised to undertake nursery sowing of *boro* rice, sowing of wheat and also nursery sowing and transplanting of *rabi* vegetables like cauliflower, cabbage, radish, carrot and ladies finger.
- > Prepare land and undertake sowing of mustard and transplanting tomato in Nagaland.
- Farmers in Mizoram are advised to undertake harvesting of matured crops of rice and foxtail millet and sowing of crops like carrot, raddish, peas, *rabi* onion, lentil etc. and transplanting of other vegetables crops like cauliflower, cabbage, capsicum and tomato.
- Farmers in Manipur are advised to harvest matured crops of rice, soybean and groundnut immediately as rain is likely after 48 hours. Farmers are also advised to undertake nursery sowing of onion, tomato and

- capsicum, nursery sowing and transplanting of cauliflower and cabbage and sowing of crops like field pea, rapeseed and mustard, pea, leafy vegetables, carrot, radish, turnip and transplanting of potato.
- Recommended varieties of major crops to be sown in different States of the region are mentioned in Annexure I.
- Farmers are advised to undertake intercultural operation on a non rainy day during next 48 hours in the standing crops Assam & Arunachal Pradesh.
- The present weather is congenial for damping off in nursery of brinjal and tomato in Tripura, to control this disease Ridomil 2gm per litre may be sprayed in the nursery.
- There may be attack of gundhi bug in *aman* rice in Tripura. Endosulfan 2 ml per litter of water or Malathion 1 ml per litter may be sprayed to manage the attack.
- ➤ There may be attack of ear cutting caterpillar in rice in Tripura. Neem green @ 2 ml per litter of water may be sprayed to manage the attack.

# **NORTHWEST INDIA** [JAMMU & KASHMIR, HIMACHAL PRADESH, UTTARAKHAND, PUNJAB, HARYANA, DELHI, UATTAR PRADESH & RAJASTHAN]

- **Realised Rainfall:** Dry weather prevailed over the states the region except Jalore district in West Rajasthan
- **Rainfall Forecast:** Either mainly dry or isolated rainfall is likely over the region during next 3 days except in East Rajasthan where rain is likely at a few places during next 24 hours and at isolated places thereafter.

#### • Major Crops:

- Wheat, gram, oats, lentil, pea, garlic, onion, potato, mustard and sarson (sowing) in Delhi
- ➤ Wheat(sowing) and vegetables(sowing/transplanting) in Himachal Pradesh.
- ➤ Rice (harvesting), wheat, barley, gram, brown sarson, potato, radish, carrot, garlic, spinach and peas(sowing/germination), toria (flower bud initiation), mustard(early vegetative/vegetative in Jammu) in Jammu & Kashmir.
- Toria, mustard (early vegetative), wheat, mustard, gram, pea, potato and seasonal vegetables(sowing) in Uttarakhand.
- Sugarcane (harvesting), cotton (boll maturity / picking), potato, wheat, lentil, gram, radish, ghobi sarson, raya, African sarson(sowing) in Punjab.
- > Sugarcane (vegetative), wheat, gram and barseem(sowing) in Haryana.
- ➤ Wheat, gram, barley, lentil, barseem, pea, maize(sowing), rai, mustard, toria(early vegetative), sugarcane (grand growth) in Uttar Pradesh.
- > Sugarcane (grand growth), wheat, barley, gram, lentil, mustard, ajwain, fenugreek, cumin and isabgol(sowing) in Rajasthan.

#### Advisory:

- Farmers are advised to undertake land preparation and sowing of *rabi* crops like wheat, lentil, potato, mustard, sarson, vegetable pea, berseem and gram may be undertaken in various states of the region. Farmers are advised to complete harvesting of kharif crops and undertake post-harvesting operations. Arrange for proper storage facilities for the harvested produce.
- Farmers in Delhi region are advised to undertake sowing of wheat, gram, mustard, lentil, oat, berseem, pea, garlic, potato, sarson saag, amaranthus, radish, spinach, turnip and coriander and also sowing/transplanting of tomato, chilli, brinjal, cauliflower, peas, carrot, onion, garlic and cabbage etc. (varieties in Annexure I). Sowing of pea should not be delayed as late sowing reduces the seed yield and exposes the crop to insect damage.
- Farmers in Mid Hills Sub-Humid (Solan, Shimla, Sirmaur) of Himachal Pradesh are advised to undertake sowing of wheat, barley, oat, onion and peas. Undertake sowing of peas in mid-hills and sowing/transplanting of onion, radish, cabbage, cauliflower and broccoli in Sub Montane & Low Hills Sub-Tropical Zone (Hamirpur, Kangra and Una Chamba districts) and planting of leafy vegetables spinach, fenugreek and brown sarson in poly houses and bulbs of flowers in high hill temperate dry zone(Lahul and Spiti district)
- Farmers in sub tropical zone (Jammu, Kathua and Reasi district) are advised to undertake sowing of wheat, barley and nursery sowing/transplanting of onion and cauliflower. Undertake sowing of wheat

- and barley in intermediate zone(Rajouri, Doda and Udhampur districts). Harvest the matured crops of rice under the present weather conditions.
- Farmers in Uttarakhand are advised to undertake sowing of wheat, mustard, gram, lentil, pea, potato and seasonal vegetables.
- Farmers in Punjab are advised to undertake sowing of wheat, potato, lentil, gram, radish, turnip, ghobi sarson, raya and African sarson.
- Farmers in Haryana are advised to undertake sowing of wheat, barseem and gram
- Farmers in Uttar Pradesh are advised to undertake sowing of wheat, potato, gram, barley, lentil, barseem, pea and maize.
- Farmers in Rajasthan are advised to undertake land preparation and sowing of wheat, barley, gram and mustard, ajwain, fenugreek, cumin and isabgol utilizing the rainfall during last week. Raise nursery for autumn vegetable crops like tomato, brinjal, cauliflower, cabbage and raddish.
- ➤ Present weather is favourable for incidence of fruit fly and sucking pests in green vegetables, spraying of Phosmite@1.5-2 ml or Dimethoate @ 2 ml /litre water or Neem oil spray may be undertaken to control sucking pest.

#### **SOUTH INDIA** [TN, AP, KERALA, KARNATAKA, LAKSHADWEEP, ANDAMAN & NICOBAR ISLANDS]

- **Realised Rainfall:** Many of the districts in Tamil Nadu, Kerala, Karnataka, and Andhra Pradesh received rainfall.
- Rainfall Forecast: Rain is likely to occur at a few places over the region during next 24 hours except Tamilnadu and Kerala and at isolated/few places thereafter. Rain is likely over Kerala and Tamil Nadu at few places during next 24 hours and at many places thereafter.

#### Major Crops:

- *Mundakan* rice is at tillering stage. Pepper is at maturity stage and arecanut is at nut development / maturity stage in Kerala. New planting is continued for coconut, black pepper, cocoa, cashew, nutmeg, mangosteen, rhambutan etc.
- Late samba / thaladi rice (vegetative), groundnut (harvesting), sugarcane (cane development), banana (fruit bearing stage) in Tamil Nadu. This is proper time for sowing or rainfed crops.
- Rice is at harvesting stage; *rabi* rice(early tillering), *rabi* vegetables are at transplanting / early vegetative stage in Andhra Pradesh.
- Sugarcane (cane development). This is proper time for sowing of gram, safflower, *rab*i sorghum and sunflower in Karnataka. Early sown crops are at early vegetative stage.

#### Advisories:

- Farmers are advised to undertake sowing of the rice fallow blackgram in coastal areas of Krishna Districts in Andhra Pradesh.
- ➤ Due to expected rainfall in all the States in the region, farmers are advised to postpone the harvesting operations of matured rice and other *kharif* crops.
- Farmers in North Transition Zone (Dharwad, Haveri, Belgaum) and North East Transition Zone (Bidar) are advised to undertake sowing of wheat, safflower, rabi sorghum and Bengal gram and black gram and green gram in coastal zone of Karnataka.
- Farmers in North Dry Zone (Bijapur) are advised to complete sowing of sunflower, chickpea and irrigated wheat as early as possible. To get more profit, sowing of intercropping systems like Safflower + Chickpea (2:4 row proportion) and Wheat + Chickpea (3:1 row proportion) can be taken up.
- Farmers in Problem Areas Zone (Kottayam) of Kerala are advised to undertake sowing of bitter gourd, snake gourd, ash gourd, pumpkin and planting of banana. Continue land preparation and sowing of puncha rice in nursery.
- Farmers in Southern, Central and Northern Zones of Kerala are advised to undertake planting of coconut, black pepper, cocoa, cashew, nutmeg, mangosteen and rhambutan in South Zone of Kerala.
- Farmers are advised to undertake intercultural operations and application of fertilizers in *late samba / thaladi* rice in Cauvery Delta Zone (Thanjavur, Nagapattinam, Thiruvarur, Karur, Perambalur and Tiruchirapalli) and sunflower, coriander etc, in Southern Zone and undertake direct seeding of rice in north western zone of Tamil Nadu.

- ➤ Prevailing weather conditions in Scarce Rainfall Zone of Andhra Pradesh are congenial for the incidences of bacterial leaf spot, black arm and boll rot in cotton, leaf folder, blast and neck blast in paddy, maruca pod borer and Heliothis in redgram and Spodoptera in castor. Undertake plant protection measures to control the pests and diseases.
- Prevailing weather conditions are favourable for the incidences of blast, sheath rot, sheath blight, bacterial leaf blight, rice bug in rice, rhinoceros beetle, red palm weevil, bud rot disease and stem bleeding in coconut, spindle bug and yellow leaf disease in arecanut, pollu beetle, quick wilt and burrowing nematode in pepper, Sigatoka leaf spot, burrowing nematode and pseudo stem borer in banana, rhizome rot disease in cardamom and berry borer in coffee in Kerala. Farmers are advised to undertake plant protection measures to control the pests and diseases after current spells of rain.
- ➤ Present weather conditions are favourable for the incidence and spread of leaf folder in rice in Rayalaseema in Andhra Pradesh. To control, pull the rope across the field 2-3 times at tillering stage, so that larvae falls down from the leaves or spray Chloripyriphos @ 2.5ml per litre or Acephate @ 1.5 gm per litre or Cartaf hydrochloride @ 2.0 gm per litre of water.
- ➤ Plant protection measures may be undertaken after spells of rain in Tamil Nadu, Kerala and on a non rainy day in the remaining parts of the region.

#### Animal husbandry:

- Care should be taken against the decrease in day temperature in Karnataka for silk worm and poultry and dairy rearing houses by maintaining optimum room temperature and hygiene condition. Vaccination for cattle's to be taken up against the out break foot and mouth and rinder pest
- ➤ Prevailing weather conditions are congenial for the occurrence of Hemorrhagic Septicemia and Black Quarter in cattle and ET and sheep pox in sheep in Andhra Pradesh. Undertake vaccination to prevent from infection.

#### **WEST INDIA** [GOA, MAHARASHTRA, GUJARAT]

- **Realised Rainfall:** Rain occurred in most of the districts of this region except Gujarat region.
- Rainfall Forecast: Rain is likely to occur at a few places over Madhya Maharashtra and Marathwada during next three days. Rain is likely at a few places during next 24 hours over Konkan & Goa and at isolated places thereafter. Isolated rainfall or mainly dry weather is likely in the remaining regions.

#### Major Crops:

- ➤ Kharif rice (harvesting in Konkan, Kolhapur, Nashik & Pune (western parts) divisions), soyabean (harvesting), cotton (boll formation / maturity / picking), sunflower (harvesting), groundnut (harvesting), red gram (flowering / pod formation), irrigated cotton (boll formation / boll maturity / picking), rabi jowar & safflower (sowing / germination), gram, linseed and maize (sowing) and rainfed wheat (sowing) in Maharashtra.
- ➤ Rice (maturity / harvesting), groundnut (maturity / harvesting), cotton (boll formation / boll maturity / picking), maize (maturity / harvesting), bajra (maturity / harvesting), pigeon pea (flowering / pod formation), sesamum (maturity / harvesting), soybean (maturity / harvesting), garlic, wheat, gram, mustard, *rabi* fennel, cumin and coriander (sowing), sugarcane (planting) and cauliflower (transplanting) in Gujarat.

#### Advisory:

- As most of districts of Maharashtra and Saurashtra & Kutch region received rainfall during last week, farmers are advised to postpone irrigation to the standing crops.
- As rain is likely to occur at a few places in Madhya Maharashtra and Marathwada, undertake intercultural operation and application of fertilizer and plant protection measures on a non rainy day.
- ➤ Undertake harvesting of already matured crops like *Kharif* rice, soyabean, sunflower and groundnut and picking of cotton in Maharashtra.
- ➤ Undertake land preparation for preparation of nursery for *rabi* rice and also sowing of horse gram, field bean and cowpea in Konkan region utilizing realized rainfall.
- As soil moisture status is favourable, undertake sowing of *rabi* jowar, sunflower, gram, safflower and rainfed wheat and also planting of sugarcane in Maharashtra.

- Taking advantage of relatively dry weather during next three days, farmers of Gujarat State are advised to undertake harvesting of *kharif* crops like rice, groundnut, maize, bajra, green and sesamum.
- ➤ Undertake sowing of crops like rapeseed, mustard, garlic, wheat, gram, *rabi* fennel, cumin, coriander etc. and vegetables like carrot, onion, raddish, brinjal and transplanting of vegetables like cauliflower and cabbage and also planting of sugarcane in Saurashtra and Kutch region during this period. Undertake field preparation for sowing of wheat.
- Recommended varieties of major crops to be sown in different States of the region are mentioned in Annexure I.
- Taking the advantage of dry condition, intercultural operation and weeding may be carried out in standing crops in Gujarat and Vidarbha region of Maharashtra State.
- ➤ There may be incidence of mango shoot borer and midge fly on new flush of mango in north konkan region. Farmers are suggested to spray Monocrotophos 35% @ 11 ml / 10 litres of water for their control.
- ➤ Prevailing weather is favourable for attack of blast in rice in Pune division of Maharashtra; spray Copper oxychloride 1250 g + Streptocyclin 75 g per ha in 500 liters of water.
- ➤ Infestation of jassids crossed ETL in North Saurashtra Zone. Spray Imidachloprid @ 4 ml or Acetamaprid @ 2 g /10 litres of water.
- ➤ Apply plant protection measures in Konkan and Goa, Madhya Maharashtra and Marathwada on a non-rainy day.

#### **CENTRAL INDIA** [M.P., CHHATTISGARH]

- **Realised Rainfall:** Dry weather prevailed in the region during the week.
- Rainfall Forecast: Rain is likely at a few places over West Madhya Pradesh and Vidarbha; at few/isolated places over remaining regions.
- Major Crops:
  - This is proper time for sowing of *rabi* crops like wheat, gram, lentil, linseed etc.

#### • Advisory:

- Farmers in Malwa Plateau Zone in Madhya Pradesh are advised to undertake land preparation for sowing of wheat after 15<sup>th</sup> November with irrigation facilities. Also undertake sowing / planting of coriander and garlic.
- Farmers in Bundekhand Zone of Madhya Pradesh are advised to complete sowing of *rabi* crops like wheat, *rabi* vegetables, mustard and wheat.
- Farmers in Gird Zone of Madhya Pradeshare advised to undertake transplanting of winter vegetables.
- Farmers in Kymore Plateau and Satpura Hill Zones are advised to start land preparation for sowing of wheat crop under irrigated conditions. Complete sowing of chickpea, lentil, linseed and field pea at the earliest at optimum soil moisture. Prepare nursery for cauliflower and undertake sowing of potato, coriander and fenugreek.
- Farmers in Vindya Plateau Zone are advised to undertake sowing of wheat under both irrigated and non irrigated conditions. Also undertake sowing / planting of gram, garlic and sugarcane. Also undertake transplanting of carrot, brinjal, tomato, raddish, chilli and cabbage.
- Farmers in Jhabua Hills Zone (Jhabua, Dhar, Alirajpur) are advised to complete harvesting of *kharif* crops and undertake sowing of early wheat (irrigated), gram and maize.
- Farmers in Bastar Plateau Zone are advised to harvest matured paddy and prepare land for sowing of *kharif* crops.
- At present the minimum temperature is around 20°C in Chattisgarh Plain Zone which is favourable for the sowing of *rabi* crops like gram, pea, linseed and mustard. Moreover, due to the rains received during the month of October, there is sufficient moisture in the field. Looking to these conditions farmers are advised for the sowing of rabi crops just after the harvesting of the kharif crops. Wherever, irrigation facility is available sowing of mustard can also be done. To skip the infestation of aphids in mustard farmers are advised to complete the sowing of the crop by the second week of November. Also undertake planting of potato.

➤ Weather conditions in Grid Zone of Madhya Pradesh are congenial for the incidences of painted bug in mustard. Farmers are advised to monitor the crop and undertake spraying of Dimethoate @ 1 ml/litre of water on a non rainy day.

#### **Animal Husbandry & Poultry**

- ➤ Humid weather condition prevails during these days hence keep cattle's in dry and clean place. Create neem leaves smoke in night to save them from mosquitoes and bees.
- ➤ Undertake vaccination of cattles for the control of Anthrax, Galghotoo, foot and mouth diseases, deworming of animals and maize kadbi should be cut in small pieces by chaff cutter for animal feeding.

#### Annexure I List of Varieties

Assam

Cauliflower: Improved Japanese, Pusa Synthetic, Pusa Snowhall etc.

Cabbage: Golden Acar, Pride of India, Pusa Mukta etc.

Raddish: Pusa Desi, Pusa Chetki and Pusa Himani.

Brinjal: Pusa Kranti, Cluster, JC-1, Kuchia, Pusa Purple Long, Pusa Purple Round, Pusa Vairab, JC-2, BWR-

12 etc.

**Knolkhol:** White Vienna. **Toria:** TS -27, TS- 29 etc.

Potato: Kufri Jyoti, Kufri Chandramukhi, Kufri Sindhuri, Kufri Megha etc.

**Rapeseed:** TS-38, M-27, TS-29, TS-36, TS-46 etc.

Mustard: TM-2, TM-4, Varuna etc.

Tomato: Punjab Chhuhara, Arka Alok, Pusa Rubi, Sioux, Punjab Keshri, Arka Abhijit, BT-1, VC-48-1 etc.

**Lentil:** B-77, L-9-12, PL406 and PL81-4.

Pea: T-163, Boneville, HUP-2, Rachna and Pant 14.

Carrot: Nuntez.

Boro rice: Jyotiprasad, Kanaklata, Jaymoti, Boro-1, Boro-2, Masuri etc.

**Manipur** 

Field pea: Rachana.

Meghalaya

Cauliflower: Pusa Snowball, Pusa Synthetic etc.

Cabbage: Pusa Mukta, Pride of India etc.

Bihar

Potato: Kufri Lalima, Kufri Kuber and Kufri Alankar, Kufri Jyoti, Kufri Chandramukhi, Kufri

Ahoka, Ranjendra Aloo 1, 2 and 3, Kufri Badshah.

**Cauliflower:** Kuwari, Patna Early, Pusa Katki, Pusa Deepali and Hajipur Agat. **Gram:** Rajendra Chana, K.P.G. 59, Pusa 256, RAU 52, KWR 108, Uday, SG2.

Lentil: Pusa 25, Pant L 406, Mallika, Arun, Pant L 639, BR 25.

Peas: Ratna, Aprna, Harbhajan.

Mustard: Baruna, Pusa Bold and Kranti.

Rapeseed: Rajendar Rai Pichheti, Rajendra Anukul and Rajendra Suflam.

**Sarson:** Rajendra Sarson-1, Swarna etc.

Sunflower: Morden, Surya, Paradovic, KBSH 1, 44.

Maize: Saktiman 1, 2, 3, 4, Laxmi, Rajendra Shankar Makka 1 and 2.

Jharkhand

Mustard: Pusa Jaikisan, Siwani, Varuna and Kranti, Pusa Bold.

Potato: Kufari Chandramukhi, Kufari Ashoka and Kufari Kanchan.

Pea: Arkel and Azad P-1 for vegetable and D.D.R 23 and swarn Rekha for grain.

Gram: Birsa Chana-3, BG-372, BG-256, KWR-108, Pant G-186, Pant G-114 and BG-1053, BG-1003, KAK-2.

**Lentil:** P.L.-406, P.L.-639, D.P.L.-15, D.P.I.-62.

Linseed: Shubhra, T-397, Sweta etc.

Brinjal: Pusa Purple Long, Swarn Pratibha, Pusa Hybrid-5, Pusa Hybrid-6, Swarn Shakti.

Onion: Pusa Red, Pusa Ratnar, N-53, Early Grano, Light Red, Arka Niketan, Agrifound Dark Red.

Cabbage: Late Drumhead.

Cauliflower: Snowball-6, Pusa Snowball-21 etc.

#### **West Bengal**

White mustard: Binoy, Subinoy etc.

Mustard: Sita, vagirathi, Baruna, Agrani, Panchali, Sarama etc.

Wheat: Rajlakshmi, HP 1701, Janak, HP-1209, BW-11, Sonalika and UP-262.

#### Orissa

**Groundnut:** Smruti, TAG-27, TAG – 24 and JL-24 etc.

Green pea: Rachana, Arkel and T -163 etc.

Mustard: Parbhati, Anuradha, PT-303, PT 507, TS-29 & M-27 etc.

**Onion:** Nasik Red, Patna Red, Pune Red, Bellary Red, Pusa Ratnar, Pusa Madhavi, Arka Niketan, Arka Pragati, Agrifound Light Red, Agrifound Dark, Punjab Selection, Patna White, Bombay White, Pusa White Round etc.

#### Karnataka:

Jowar: variety M-35-1 and Hybrid CSH-10 Bengal gram: A-1, JG-11, KAK-2 and Vishal.

Ragi: GPU-45,48 and 26

#### New Delhi

Wheat: H.D. 2687, H.D. 2851, H.D. 2894, H.D. 2967.

Gram: Kabuli type - Pusa 1003, Pusa 1108, Pusa 1105, Pusa 2024; local type -Pusa 329, P.B.G. 1, P.B.G. 72,

Pusa 362, Pusa 391.

Mustard: Rohini, Pusa Jaikisan, Pusa Bold, Vardan, Jaggannath, Jawahar and for rainfed conditions: Pusa

Barani, Pusa Aghrani, RH 10. **Lentil:** Pusa Masoor -5 (L-4594)

Oat: - J.H.O-822, J.H.O-851, Kent, U.P.O.-212, O.L.-9 and

**Barseem**: Barseem-1, 2, 3, Masakavi, B.L.10, Vardan, Buland

Garlic:G-1, G-41, G-50, G-282

Early pea: Azad Matar-1, Azad Matar-3, Linkan, Pant Matar-3 and Bourneville.

Sarson: Sarson saag, Pusa saag-1

**Coriander:** Pant Haritama and Azad Dhania 1

Potato: Kufri Badshah (Late blight tolerant), Kufri Jyoti (Short duration), Kufri Alankar, Kufri Chandramukhi

#### **Himachal Pradesh**

Wheat: HPW-89,147 VL-738 and HS-240

**Barley**: HBL-316 and Dolma and oat (Palampur-1)

Raddish: Japani White, Early Mino White,

Cabbage Snow ball K-1 Palam Uphar, Golden Acre,

**Knol khol** White Bina,

Broccoli Palm Kanchan, Palam Vichtrta, Palam Samridhi,

Cauliflower Pride of India,

**Peas:** Lincoln, Priya

#### Jammu & Kashmir

Barseem: mascavi, pusa giant, BL-1

Mustard: RLM-514, RLM-619, Kranti, Varuna and RH -30, Under high altitude: KOS-1 and KS-101

(Gulcheen)

**Gram:** C-235, K-468, Gourav and PBG-1 **Field pea:** T-163, PG-2, Rachna, HFP-3

**Wheat:** HD2329, PBW-154, PBW-343, Raj-3077, RSP-303 and WH 542 for irrigated areas and PBW 175, PBW 396 and IWP 72 for rainfed areas in cold arid zone, L-738 and PBW-175 under the rainfed conditions, VL-804 and HS-240 under irrigated and rainfed areas in intermediate zone.

**Lentil:** L-9/12, PL-406 and L-4147

#### Uttarakhand

Wheat: UP-2382, UP-2384, UP-2584, UP-2572, UP-2554, hd-2687, PBW-550, PBW-343, PBW-502, PBW-154, WH-542

**Mustard:** Rohini, Kranti, Krashna, Vardan **Gram:** Avrodhi, Pant G-114, Pusa-256 or Uday.

Pea: Rachna, Pant P-5, Type-163

#### **Uttar Pradesh:**

**Wheat :** K-307, Narendra Wheat-1012, Ujiyar, HD-2888, Mandakini, Gomati PVW-443, 343, HUW-468, 510, UP-2382, KRL-19, K-8434, NW-1067, 1076

Barley: Jyoti, Preeti, Manjula, Jagriti and N.D.V.-940

**Potato :** Ku. Bahar, Ku. Sada Bahar, Ku. Badshah, Ku. Satluz, Ku. Lalima, Ku. Chandramukhi, Ku. Ashoka and Ku.Chipsona-1, 2

#### Rajasthan

**Potato:** Kufri-Ashok and Chandramukhi for early sowing, Kufri-Anand, Chipsona-1, 2, Jyoti and Pukhraj, for mid sowing and Kufri-Lalima, Sinduri and Satluj for late sown conditions.

Gram: GNG-469, GNG-663, RSG-44, RSG-888 and for rainfed C-235

**Mustard:**Pusa Kalyani, T – 59, Varuna, Pusa Bold, RH – 30, APR – 15, Kranti Bio – 902, Pusa Jaikisan

Tomato: Pusa Rubi, Pusa Earli and Vihar

Brinjal: Pusa Summer Prolific Round, Pusa Summer Prolific Long, Meghdoot, Navin and Arka Bahar

Cauliflower: Pusa Snowball 1 and Hissar 1 Cabbage: Pusa Drum Head and Hybrid 10 Radish: Japanese White and Hill Queen Lentil: T36, BL406, Sihore 74-7 and K75

Barley: RD-2052, RD-2508, RD-2035, RD-2592, RD-2624, RD-2660 & RD-2552,

Fenugreek: RMT-1, RMT-143 & Pusa early bunch

**Cumin:** RS-1, RZ-19, RZ-209, Gujarat Jira-1, Gujarat jira-2 & Gujarat jira-3 **Wheat:** Raj-1482, Raj 3077, HD 2009(Arjun), PBW-502, PBW 550, Raj 4037

#### Harvana

Wheat: WH-157, WH-147, WH 282, WH 542, WH 711, PBW 550, DBW 17, WH 1025 and C-306

Barseem: Mescavi.

Raya: PBR-210 and PBR 91 Gram: PDG 3 and PDG 4

#### **Punjab**

**Wheat:** DBW-17, PBW-502, PBW-343, WH-542, and durum wheat PDW 291, PDW-274 and PDW-233 under irrigated conditions and PBW-527, PBW-175 under rainfed conditions.

Raya: PBR-210, RLM-619, PBR-91 under irrigated conditions and PBR-97 under rainfed conditions

#### Maharashtra

**Rabi jowar:** Selection -3, Phule Mauli, Phule Anuradha etc. for low fertile soil, Phule Chitra, Phule Mauli, Maldandi 35 - 1 etc. for medium fertile soil & Phule Vasudha, Phule Yashoda, CSV-22 etc. for black soil.

Sunflower: Modern, Bhanu, EC-68414, Phule Raviraj, K.B.S.H.-1, K.B.S.H.-44 and M.S.F.H.-17.

**Safflower:** Bhima, Phule Kusuma, Girna, Nari-6, Sharada, Nari-NH-1 and DSH-129.

**Gram:** Vijay, Vishal, Virat and Dig Vijay.

Sugarcane: COM -88121, CO-0265 (Phule-265), CO -8014, CO -86032 and CO 94012.

Gujarat

Wheat: Arnej - 206, GW-1 & 2. Rapeseed: Guj. Rapseed-1 or 2.

Mustard: Varuna, Gujarat Mustard-1, Gujarat mustard-2.

**Gram (rainfed):** Gujarat Chickpea – 1 & 2. **Gram (irrigated):** Gujarat Gram-1 or ICC-4.

Garlic: Gujarat Garlic 1, 2 & 10.

Cabbage: Kranti, Golden Acare, Pride of India, Coppen Market etc.

Cauliflower: Early maturing varieties like Pusa Early, Pusa Dipali, Pusa Kartiki, Early Kuvari etc. and for

medium duration varieties like Pusa synthetic, Early Snowball, Snowball etc.

Carrot: Pusa Kesar, Pusa Yamadgani & Hissar Gairic etc.

Onion: Pusa Red, Nashik Lal, N 53 & H 48 etc.

Raddish: Pusa Hemadri, White ICL, Japanees White, Pusa Rashmi, Pusa Chetaki etc.

**Brinjal:** Guj. Brinjal – 6, P.L.R. 1, Junagadh Lambagoal, Mahicco – 11, 16 etc.

**Cumin:** Guj. Cumin- 2, 3, 4. **Coriender:** Guj. Coriander – 1, 2.

Madhya Pradesh

**Gram:** JG-14, JG-06, JG-63, JG-11, JG-11, JG-130, JG-16, JG-322 and JG-01. **Mustard:** Pusa Mahak, Pusa Agrani, Pusa Jaikisan, Pusa Bold, Jaggannath etc.

Linseed: PKDL-21. Lentil: JLS-03.

**Sugarcane:** Ko. 86032, Ko-J-N 86600 or 86141.

Onion: Udaipur 102, Pusa White, Nasik Red, Nasik Roja etc.

**Garlic:** G 283, G 1, G 41 and G 323.

**Wheat:** Amar, Amrita, Harshita and gram JG 130, JG 226, Vshal, Vijay etc in rainfed and semi irrigateded cundition and rabi Maize cv.: JM- 421, JM- 8, JM- 12, Chandan makka- 3, Ganga- 3, Ganga- 4, HPQM – 1 in irrigated cundition.

**Wheat: (Jhabua Hila Zone)** 

Early sown: Amar (HW 2004), Amrita (HI 1500), Harshita (HI 1531)- 1-2 irrigation;

Timely sown: Naveen Chandosi (HI 1418), Swarna (HI 1479), Poorna (HI 1544) – 3-4 irrigation, GW 273, GW

322, GW 366 - 5 - irrigation

Gram: JG 130, JG 226, Vshal, Vijay etc

**Rabi Maize** cv.: JM- 421, JM- 8, JM- 12, HPOM – 1

Wheat (Vindya Plateau Zone )

Irrigated - GW - 190, GW - 273, Kanchan (GW -332), Mangal, HI - 1077, Lop-1, Malwa Shakthi, Malwa Ratna, Sudha, etc

non irrigated (1 irrigation) Sujatha.

Gram: JG-130, JG-11, JG -315, JG-16, Jacky-9218 & Kabuli channa, Kak-2, JGK -1

Garlic: G-283, G-1, G-41, G-323

Sugarcane: K Jawahar-86141, K Jawahar – 86572, K –N 8632, K-6304, KC-671

**Annexure II** 

