**Table S1** Germplasm lines used in field screening for seedling stage cold tolerance and their SES score under field screening.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SL.**  **No.** | **Germplasm**  **Name** | **Accession**  **Number** | **Score** | **Place of collection/**  **adaption** | **SL.**  **No.** | **Germplasm**  **Name** | **Accession**  **Number** | **Score** | **Place of collection/**  **adaption** |
| 1 | Satabdi | Variety | 5(96.3) | West Bengal | 111 | Lal Aijung | 43097 | 7(73.84) | Assam |
| 2 | Panikeokia | Cultivar | 7(79.66) | Assam | 112 | Laxman | 43098 | 7(70.44) | Assam |
| 3 | Ajaya | Hybrid | 3(89.66) | Odisha | 113 | Shanti joha | 43099 | 7(71.29) | Assam |
| 4 | Karta dhan | 43268 | 7(69.66) | Arunachal Pradesh | 114 | Nashket Bora | 43100 | 7(57.99) | Assam |
| 5 | Lalat-MAS | Variety | 7(66.3) | Odisha | 115 | Kunkuni joha | 43102 | 7(67.99) | Assam |
| 6 | CR-2840-1 | Culture | 7(69.66) | CRRI,Cuttack | 116 | ketoki joha | 43103 | 7(74.59) | Assam |
| 7 | Parijat | Variety | 7(66.3) | Odisha | 117 | Joha Bora | 43104 | 7(64.59) | Assam |
| 8 | IRRI-143 | Culture | 7(66.3) | IRRI,Philippines | 118 | Ranga Bora | 43105 | 7(77.99) | Assam |
| 9 | CR2837-1 | Culture | 7(79.66) | CRRI,Cuttack | 119 | Bor-janghia | 43106 | 7(64.59) | Assam |
| 10 | IRRI-120 | Culture | 7(82.96) | IRRI,Philippines | 120 | Basumati | 43107 | 7(71.29) | Arunachal Pradesh |
| 11 | Rajalaxmi | Hybrid | 5(89.66) | Odisha | 121 | Shillong Andeng | 43108 | 5(71.29) | Arunachal Pradesh |
| 12 | Lalat | Variety | 7(72.96) | Odisha | 122 | Amro(Dalmang) | 43109 | 7(67.99) | Arunachal Pradesh |
| 13 | Annada (check) | Variety | 4(83.52) | Odisha | 123 | Umkel | 43110 | 7(57.99) | Arunachal Pradesh |
| 14 | Govind | Variety | 3(82.96) | Uttar Pradesh | 124 | Shillong | 43111 | 7(64.59) | Arunachal Pradesh |
| 15 | IRRI-112 | Culture | 7(72.96) | IRRI,Philippines | 125 | Miching | 43112 | 7(74.59) | Arunachal Pradesh |
| 16 | Sahabhagidhan (check) | Variety | 7.5(80) | Odisha,Jharkhand | 126 | Amdeng | 43113 | 5(67.99) | Arunachal Pradesh |
| 17 | Geetanjali | Variety | 1(99.66) | Odisha | 127 | Tagur | 43115 | 7(71.29) | Arunachal Pradesh |
| 18 | Vandana (check) | Variety | 5(82.23) | Jharkhand | 128 | Itanagar | 43116 | 7(64.59) | Arunachal Pradesh |
| 19 | Brown gora | 17008 | 7(69.66) | Bihar | 129 | Kala Bora | 43117 | 7(61.29) | Assam |
| 20 | Chandrama | Variety | 7(69.66) | Assam | 130 | Beckjer | 43118 | 7(67.99) | Assam |
| 21 | IRRI-43-s-b | Culture | 7(86.3) | IRRI,Philippines | 131 | Geko | 43119 | 5(71.29) | Assam |
| 22 | Kalinga-III | Variety | 1(96.12) | Odisha | 132 | Darim | 43120 | 5(67.99) | Assam |
| 23 | Virendra | Variety | 7(69.66) | Jharkhand | 133 | Chhota jangia | 43121 | 7(74.59) | Assam |
| 24 | CR-2837-1-1-1-2 | Culture | 7(86.3) | CRRI,Cuttack | 134 | Kokua | 43122 | 5(71.29) | Assam |
| 25 | Padmini | Variety | 5(72.96) | Odisha | 135 | Chokua | 43123 | 7(77.99) | Assam |
| 26 | Kalakeri | 23652 | 7(69.66) | Odisha | 136 | Bada jangia | 43124 | 7(67.99) | Assam |
| 27 | CR 2839-1-17-1-4 | Culture | 7(89.66) | CRRI,Cuttack | 137 | Alpana | 43125 | 7(54.59) | Assam |
| 28 | CR 1980-1 | Culture | 7(72.96) | CRRI,Cuttack | 138 | Gamiri | 43126 | 7(74.59) | Assam |
| 29 | IRRI 113 | Culture | 7(86.3) |  | 139 | Ampi | 43127 | 5(77.99) | Assam |
| 30 | BR 72 | Variety | 7(82.96) | Bangladesh | 140 | Joha | 43128 | 5(67.99) | Assam |
| 31 | Pucho | 43239 | 5(76.3) | Arunachal Pradesh | 141 | Effcey | 43129 | 7(71.29) | Assam |
| 32 | Amte | 43240 | 7(82.96) | Arunachal Pradesh | 142 | Bogadhan | 43130 | 7(64.59) | Assam |
| 33 | IET 21625 | culture | 7(85.96) | CRRI,Cuttack | 143 | Lahi joha | 43131 | 7(77.59) | Arunachal Pradesh |
| 34 | Damchak | 43242 | 7(85.96) | Arunachal Pradesh | 144 | Airi | 43132 | 7(74.59) | Arunachal Pradesh |
| 35 | CR3825-2-1-2-3 | Culture | 7(89.66) | CRRI,Cuttack | 145 | Ampaki | 43133 | 7(64.59) | Arunachal Pradesh |
| 36 | Kilong | 43244 | 7(79.3) | Arunachal Pradesh | 146 | Jangia | 43134 | 5(77.99) | Arunachal Pradesh |
| 37 | Adi | 43245 | 7(79.3) | Arunachal Pradesh | 147 | Boradhan | 43135 | 5(67.99) | Arunachal Pradesh |
| 38 | CRDhan 505 | Variety | 9(96.3) | Assam,Odisha | 148 | Hallidhan | 43136 | 7(64.59) | Arunachal Pradesh |
| 39 | CR2707 | Culture | 7(86.3) | CRRI,Cuttack | 149 | Gadra | 43137 | 7(81.29) | Arunachal Pradesh |
| 40 | CR3819-8-1-1-3-1 | Culture | 7(82.96) | CRRI,Cuttack | 150 | Nania | 43138 | 7(71.29) | Arunachal Pradesh |
| 41 | Nishin | 43249 | 7(83.44) | Arunachal Pradesh | 151 | Aijung | 43139 | 7(84.59) | Assam |
| 42 | Nagaum | 43250 | 5(83.44) | Arunachal Pradesh | 152 | Birohi | 43140 | 7(77.99) | Assam |
| 43 | CR3622-7-3-1-1-1 | Culture | 7(87.14) | CRRI,Cuttack | 153 | Nagahalli | 43141s | 7(81.29) | Assam |
| 44 | CR3628-8-3-2-1-1 | Culture | 7(76.74) | CRRI,Cuttack | 154 | Boro-4004 | Culture | 7(67.99) | CRRI,Cuttack |
| 45 | Radang | 43248 | 3(83.74) | Arunachal Pradesh | 155 | Anjali | Variety | 7(81.29) | Jharkhand |
| 46 | Ningpung | 43254 | 3(90.44) | Arunachal Pradesh | 156 | Hazaridhan | variety | 7(77.99) | Jharkhand |
| 47 | CR3621-6-1-3-1-1 | Culture | 7(80.44) | CRRI,Cuttack | 157 | CRHR-32 | Hybrid | 7(74.59) | Odisha |
| 48 | Paun | 43256 | 5(67.14) | Arunachal Pradesh | 158 | Heera | Variety | 7(67.99) | Odisha |
| 49 | Bibililo | 43262 | 7(77.14) | Arunachal Pradesh | 159 | N-22 | Landrace | 7(71.29) | Uttar Pradesh |
| 50 | Teze | 43258 | 3(87.14) | Arunachal Pradesh | 160 | Jalmagna | Variety | 7(84.59) | Uttar Pradesh |
| 51 | Rungpchi | 43259 | 3(90.44) | Arunachal Pradesh | 161 | Satyabhama | Variety | 7(81.29) | Odisha |
| 52 | Saap | 43260 | 7(83.74) | Arunachal Pradesh | 162 | Tapaswini | Variety | 7(74.59) | Odisha |
| 53 | Tazek | 43261 | 3(87.14) | Arunachal Pradesh | 163 | Ratna | Variety | 7(87.99) | Odisha |
| 54 | CR3825-6-4-6-1-1 | Culture | 7(87.14) | CRRI,Cuttack | 164 | Savitri | Variety | 7(87.99) | Odisha |
| 55 | Itanagar dhan | 43263 | 3(90.44) | Arunachal Pradesh | 165 | Pooja | Variety | 7(77.99) | Odisha |
| 56 | CR2340-1 | Culture | 9(70.44) |  | 166 | Boro 4006 | Culture | 7(77.99) | CRRI,Cuttack |
| 57 | Karta pachung | 43265 | 7(87.14) | Arunachal Pradesh | 167 | Satyakrishna | Variety | 7(67.99) | Odisha |
| 58 | Nepali dhan | 43266 | 7(77.14) | Arunachal Pradesh | 168 | Dhala Heera | Variety | 7(71.29) | Odisha |
| 59 | Naga dhan | 43267 | 7(83.74) | Arunachal Pradesh | 169 | Abhisek | Variety | 7(84.59) | Jharkhand |
| 60 | IRRI-140 | Culture | 7(83.74) | IRRI,Philippines | 170 | Samlei | Variety | 7(87.99) | Odisha |
| 61 | Ningte | 43269 | 7(70.44) | Arunachal Pradesh | 171 | Lunisree | Variety | 7(77.99) | Odisha |
| 62 | Kamesh | Variety | 3(87.14) | Jharkhand | 172 | Neela | Variety | 7(84.59) | Odisha |
| 63 | Ningche | 43270 | 7(77.14) | Arunachal Pradesh | 173 | Pathara | Variety | 7(74.59) | Odisha |
| 64 | Bombi | 43271 | 3(87.14) | Arunachal Pradesh | 174 | CR2340-2 | Culture | 7(87.99) | CRRI,Cuttack |
| 65 | Rimi | 43272 | 7(63.74) | Arunachal Pradesh | 175 | CR 2340-11 | Culture | 7(74.59) | CRRI,Cuttack |
| 66 | Jijiko (scented) | 43273 | 5(73.74) | Arunachal Pradesh | 176 | CR2340-1 | Culture | 7(81.29) | CRRI,Cuttack |
| 67 | Krishnahansa | Variety | 5(67.14) | Andhra Pradesh | 177 | CR2301-5 | Variety | 7(81.29) | Odisha,Bihar |
| 68 | MR 37 | 43275 | 3(90.44) | Arunachal Pradesh | 178 | Rudra | Variety | 7(77.99) | Odisha |
| 69 | Mapung | 43276 | 7(83.74) | Arunachal Pradesh | 179 | Sankar | Variety | 7(84.59) | Odisha |
| 70 | Kabang | 43277 | 7(80.74) | Arunachal Pradesh | 180 | IRRI-116 | Culture | 7(77.99) | IRRI,Philippines |
| 71 | Legmin | 43278 | 3(90.44) | Arunachal Pradesh | 181 | Hue | Variety | 7(74.59) | Odisha |
| 72 | Naar | 43279 | 7(83.74) | Arunachal Pradesh | 182 | Kalyani II | Variety | 7(81.29) | Odisha |
| 73 | Manipuri dhan | 43280 | 3(87.14) | Arunachal Pradesh | 183 | Gouri | Variety | 7(77.99) | Odisha |
| 74 | Langma | 43281 | 1(93.74) | Arunachal Pradesh | 184 | Kedar | Variety | 7(87.99) | Odisha |
| 75 | Serum | 43282 | 3(80.44) | Arunachal Pradesh | 185 | Vanaprava | Variety | 7(73.59) | Odisha |
| 76 | Sarpung | 43283 | 7(67.14) | Arunachal Pradesh | 186 | Salempicket | Landrace | 7(76.89) | - |
| 77 | Taba | 43284 | 7(67.14) | Arunachal Pradesh | 187 | IET 21627 | Culture | 7(93.59) | CRRI,Cuttack |
| 78 | Maglang | 43285 | 7(73.84) | Arunachal Pradesh | 188 | IR64 Sub-1 | Culture | 5(80.19) |  |
| 79 | Mopu | 43286 | 3(83.84) | Arunachal Pradesh | 189 | IR20 | Variety | 7(86.89) | IRRI,Philippines |
| 80 | Langme-1 | 43287 | 3(80.44) | Arunachal Pradesh | 190 | IRRI-122 | Culture | 7(86.89) | IRRI,Philippines |
| 81 | Langme-2 | 43288 | 3(77.14) | Arunachal Pradesh | 191 | IR36 | Variety | 7(83.59) | IRRI,Philippines |
| 82 | Jamek | 43289 | 3(80.44) | Arunachal Pradesh | 192 | Mahulata | 35186 | 7(90.19) | Odisha |
| 83 | Umbo | 43290 | 3(80.44) | Arunachal Pradesh | 193 | Swarna Sub1 | Variety | 7(93.59) | Uttar Pradesh,Odisha |
| 84 | Umleng-1 | 43291 | 1(93.84) | Arunachal Pradesh | 194 | Swarnaprava | Variety | 9(96.89) | Andhra Pradesh |
| 85 | Charmui | 43292 | 3(83.84) | Arunachal Pradesh | 195 | IR64 | Variety | 5(76.89) | Odisha |
| 86 | Taba dugu | 43293 | 3(80.44) | Arunachal Pradesh | 196 | IR72 | Variety | 7(93.59) | IRRI,Philippines |
| 87 | Umleng-2 | 43294 | 3(80.44) | Arunachal Pradesh | 197 | Sadabahar | Variety | 9(96.89) | Jharkhand |
| 88 | Phasi | 43295 | 7(70.44) | Arunachal Pradesh | 198 | Naveen | Variety | 7(90.19) | Odisha |
| 89 | Tesang | 43296 | 7(83.84) | Arunachal Pradesh | 199 | Swarna MAS | Culture | 7(86.89) | CRRI,Cuttack |
| 90 | Tsabu | 43297 | 7(67.14) | Arunachal Pradesh | 200 | Tapaswini MAS | Variety | 7(83.59) | Odisha |
| 91 | CR3820-4-5-3-4-1 | Culture | 9(83.84) | CRRI,Cuttack | 201 | IR64 MAS | Culture | 5(83.59) | CRRI,Cuttack |
| 92 | Bamak | 43299 | 3(77.14) | Arunachal Pradesh | 202 | Hema | Variety | 9(96.89) | Odisha |
| 93 | Kolong | 43300 | 7(73.84) | Arunachal Pradesh | 203 | Parijat | Variety | 7(80.19) | Odisha |
| 94 | Umpa-1 | 43301 | 7(80.44) | Arunachal Pradesh | 204 | Champa | 3399 | 9(97.19) | Odisha |
| 95 | Umpa-2 | 43302 | 7(73.84) | Arunachal Pradesh | 205 | Pateni | 22134 | 7(90.19) | Odisha |
| 96 | Sarpung | 43303 | 9(83.84) | Arunachal Pradesh | 206 | Patnai | Landrace | 7(83.59) | Odisha |
| 97 | Jagam | 43304 | 7(77.84) | Arunachal Pradesh | 207 | Khadra | 283026 | 7(90.19) | Odisha |
| 98 | Lungbo | 43305 | 7(73.84) | Arunachal Pradesh | 208 | CR1014 | Variety | 7(80.19) | Odisha |
| 99 | Bansmati | 43306 | 7(80.44) | Arunachal Pradesh | 209 | Gayatri | Variety | 7(93.59) | Odisha |
| 100 | Kala joha | 43086 | 9(77.14) | Assam | 210 | Manika | Variety | 7(80.19) | Odisha |
| 101 | Tenglai | 43087 | 7(80.44) | Assam | 211 | Urbasi | Variety | 7(86.89) | Odisha |
| 102 | Bora | 43088 | 7(73.84) | Assam | 212 | Mrulalini | Variety | 7(86.89) | Odisha |
| 103 | Mota Dhan | 43089 | 7(80.44) | Assam | 213 | Tejaswani | Variety | 7(83.59) | Odisha |
| 104 | Kala Bora | 43090 | 7(70.44) | Assam | 214 | Ranidhan | Variety | 7(90.19) | Odisha |
| 105 | Sri Lanka | 43091 | 7(73.84) | Assam | 215 | Rambha | Variety | 7(80.19) | Odisha |
| 106 | Halli Dhan | 43092 | 7(70.44) | Assam | 216 | Mandakini | Variety | 7(93.59) | Odisha |
| 107 | Khesra | 43093 | 7(73.84) | Assam | 217 | Mahanadi | Variety | 7(83.59) | Odisha |
| 108 | Ranjit | 43094 | 3(80.44) | Assam | 218 | Surendra | Variety | 7(86.89) | Odisha |
| 109 | Kumari | 43095 | 7(77.14) | Assam | 219 | CRDhan 500 | Variety | 7(90.19) | Odisha,UP |
| 110 | Kati khalli | 43096 | 7(73.84) | Assam | 220 | Reeta | Variety | 7(86.89) | Odisha |

**Parentheses contents adjusted mean of % of number of plants of a genotype affected due to seedling stage cold stress.**

Critical Differences (Between) SEd CD 1% CD 5%

Two Control Treatments 3.922828 11.560576(1) 8.359548(5)

Two Test Treatments (Same Block) 9.608928 28.317511(1) 20.476626(5)

Two Test Treatments(Different Blocks) 10.743108 31.659940(1) 22.893564(5)

A Test Treatment and A Control Treatment 7.967302 23.479640(1) 16.978321(5)

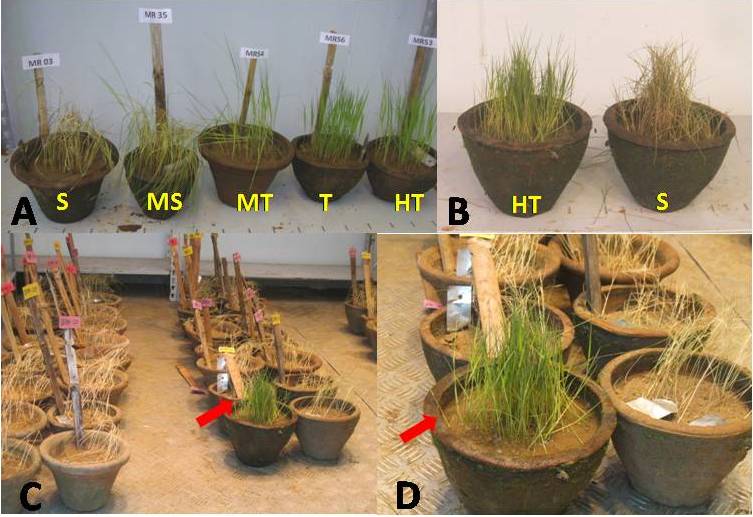
**Table S2** Average score for seedling stage cold tolerance of 48 genotypes under cold growth chamber at different temperature regimes.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Mean SES score of genotype at days after exposure to various low temperature** | | | | | | |
| **SL. No.** | **Genotype**  **NAME** | **3days at 25oc** | **7 days at 150C** | **7 days at 8 0C** | **7 days at 40C** | **14 days at 40C** | **21 days at 40C** | **REMARK** |
|  |  |
|  |  | **SES Score** | **SES Score** | **SES Score** | **SES Score** | **SES Score** | **SES Score** |
|  |  |
| 1 | Ranjit | 1(98.35) | 1(95) | 1(90) | 3(86.65) | 5(71.7) | 9(98.35) | HT |
| 2 | Jamek | 1(98.35) | 1(93.35) | 1(90) | 1(66.65) | 3(78.3) | 9(100) | HT |
| 3 | Shillong Andeng | 1(91.65) | 3(68.3) | 7(88.3) | 9(98.35) | 9(100) | 9(100) | MS |
| 4 | Itanagar dhan | 1(98.35) | 1(95) | 1(90) | 1(81.9) | 3(80) | 9(98.35) | HT |
| 5 | Jijiko | 1(95) | 3(75) | 7(95) | 9(98.35) | 9(100) | 9(100) | MS |
| 6 | Umleng-1 | 1(98.35) | 1(95) | 1(93.3) | 1(91.5) | 1(86.7) | 5(71.5) | VHT |
| 7 | Darim | 1(91.65) | 3(68.3) | 7(88.3) | 9(98.35) | 9(100) | 9(100) | MS |
| 8 | Mopu | 1(95) | 1(93.3) | 1(91.65) | 1(90) | 3(85) | 9(98.35) | HT |
| 9 | Jangia | 1(95) | 3(81.8) | 7(90) | 9(98.35) | 9(98.35) | 9(100) | MS |
| 10 | Kokua | 1(91.65) | 3(85) | 7(90) | 9(96.7) | 9(98.35) | 9(100) | MS |
| 11 | Ampi | 1(95) | 3(81.8) | 7(90) | 9(98.35) | 9(98.35) | 9(100) | MS |
| 12 | Tabadugu | 1(98.35) | 1(93.35) | 1(91.65) | 5(66.65) | 7(90) | 9(98.35) | T |
| 13 | Lagmin | 1(98.35) | 1(96.7) | 1(93.3) | 1(91.65) | 3(86.65) | 9(98.35) | HT |
| 14 | Tazek | 1(98.35) | 1(96.7) | 1(93.3) | 1(91.65) | 1(86.65) | 7(90) | HT |
| 15 | Bamak | 1(98.35) | 1(95) | 1(91.65) | 3(85) | 5(70) | 9(98.35) | HT |
| 16 | Joha | 1(98.35) | 3(71.7) | 7(88.3) | 9(95) | 9(98.35) | 9(100) | MS |
| 17 | Teze | 1(98.35) | 1(96.7) | 1(91.65) | 3(86.65) | 5(73.3) | 9(98.35) | HT |
| 18 | Geko | 1(98.35) | 3(70) | 7(93.35) | 9(95) | 9(98.35) | 9(100) | MS |
| 19 | Umbo | 1(96.65) | 1(95) | 1(91.65) | 1(90) | 3(85) | 9(98.35) | HT |
| 20 | Bora dhan | 1(91.65) | 3(68.3) | 7(88.3) | 9(98.35) | 9(100) | 9(100) | MS |
| 21 | Amdeng | 1(91.65) | 3(70) | 7(86.65) | 9(98.35) | 9(100) | 9(100) | MS |
| 22 | Langme-1 | 1(98.35) | 1(96.7) | 1(91.65) | 3(81.65) | 5(63.35) | 9(96.65) | HT |
| 23 | Langme-2 | 1(98.35) | 1(96.7) | 1(88.35) | 3(80) | 5(71.65) | 9(98.35) | HT |
| 24 | Bombi | 1(96.65) | 1(91.65) | 1(49.5) | 1(88.35) | 3(75) | 9(98.35) | HT |
| 25 | Rajalaxmi | 1(91.65) | 3(75) | 7(90) | 9(98.35) | 9(100) | 9(100) | MS |
| 26 | Puncho | 1(96.65) | 1(76.7) | 5(83.35) | 9(96.7) | 9(100) | 9(100) | MS |
| 27 | MR37 | 1(98.35) | 1(96.7) | 1(91.65) | 3(80) | 5(68.35) | 9(96) | HT |
| 28 | Charmui | 1(98.35) | 1(96.7) | 1(90) | 3(80) | 5(73.3) | 9(98.35) | HT |
| 29 | Langma | 1(100) | 1(98.35) | 1(96.7) | 1(91.65) | 1(88.35) | 5(71.65) | VHT |
| 30 | Umleng-2 | 1(96.7) | 1(91.7) | 1(90) | 1(86.7) | 3(80) | 9(96.7) | HT |
| 31 | Serum | 1(96.65) | 1(91.65) | 1(90) | 1(88.35) | 3(80) | 9(98.35) | HT |
| 32 | Ningpung | 1(98.35) | 1(94.65) | 1(90) | 3(76.65) | 5(71.7) | 9(96.7) | HT |
| 33 | Ajaya | 1(98.35) | 1(91.65) | 1(85) | 3(78.35) | 3(78.35) | 9(98.35) | HT |
| 34 | Manipuri dhan | 1(96.65) | 1(91.65) | 1(90) | 1(88.35) | 3(80) | 9(98.35) | HT |
| 35 | Nagaum | 1(98.35) | 3(88.35) | 7(83.3) | 9(95) | 9(100) | 9(100) | MS |
| 36 | Radang | 1(98.35) | 1(96.7) | 1(90) | 3(80) | 5(73.35) | 9(98.35) | HT |
| 37 | Kamesh | 1(98.35) | 1(91.65) | 1(88.35) | 1(86.7) | 3(78.3) | 9(98.35) | HT |
| 38 | Kalinga-3 | 1(100) | 1(98.35) | 1(93.3) | 1(90) | 1(88.35) | 7(80) | HT |
| 39 | Padmini | 1(98.15) | 1(96.7) | 5(86.65) | 9()95 | 9(98.35) | 9(100) | MT |
| 40 | Paun | 1(98.35) | 1(90) | 1(88.35) | 1(86.7) | 3(78.35) | 9(98.35) | HT |
| 41 | Annanda | 1(100) | 1(98.35) | 1(93.3) | 1(90) | 1(88.35) | 9(98.35) | HT |
| 42 | Geetanjali | 1(100) | 1(100) | 1(98.35) | 1(96.7) | 1(90) | 3(80) | VHT |
| 43 | Rungpchi | 1(98.35) | 1(96.7) | 1(88.35) | 1(86.7) | 1(83.3) | 7(76.65) | HT |
| 44 | Sahabhagidhan | 1(98.35) | 5(78.35) | 7(56.65) | 9(98.35) | 9()100 | 9(100) | HS |
| 45 | Krishnahansa | 1(98.35) | 1(93.3) | 1(88.5) | 3(71.7) | 7(63.35) | 9(98.35) | T |
| 46 | Govind | 1(98.35) | 1(91.65) | 1(83.35) | 3(71.7) | 5(66.65) | 9(98.35) | HT |
| 47 | Satabdi | 1(100) | 1(91.65) | 5(76.65) | 7(63.35) | 9(95) | 9(100) | MT |
| 48 | Vandana | 1(98.35) | 1(90) | 5(78.35) | 9(91.65) | 9(98.35) | 9(100) | MT |
| CV% |  | 3.1 | 11.1 | 12.0 | 11.0 | 14.1 | 7.9 |  |

**Parentheses contents mean of % of number of plants of a genotype affected due to seedling stage cold stress.**

SES; Standard Evaluation system; d: Days; S: Susceptible; MS: Moderately susceptible; MT: Moderately tolerant; T: Tolerant and

HT: Highly Tolerant; VHT: Very highly tolerant



**Fig.S1** Phenotypes of the rice seedling under controlled cold stress condition representing, **A.** Genotypes with highly tolerant (HT), tolerant (T), moderately tolerant (MT), moderately susceptible (MS), susceptible (S) genotypes at 40C 7-21 days cold stress. **B**. Genotypes with moderately tolerant (MT) and susceptible (S) genotypes after at 40C for 7days of cold stress. **C.** Genotypes after 30 days of cold stress at 40C (arrow represents the only genotype surviving). **D.** close up view of C.