Table 3: Seedling response, $L r$ genes in AVT I and II against the pathotypes of Puccinia triticina (wheat leaf/brown rust) during 2019-20 at ICAR-IIWBR, RS, Flowerdale, Shimla

| $\begin{aligned} & \text { S. } \\ & \text { no. } \end{aligned}$ | Variety/Li ne | Pathotype |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 11 | $\begin{array}{\|l\|} \hline 12 \\ \hline \end{array}$ | $\begin{aligned} & 12- \\ & 3 \end{aligned}$ | $\begin{aligned} & 12- \\ & 5 \end{aligned}$ | $\begin{aligned} & \text { 12- } \\ & 7 \end{aligned}$ | 77 | $\begin{aligned} & \hline 77- \\ & 1 \end{aligned}$ | $\begin{array}{\|l\|} \hline 77- \\ 2 \end{array}$ | $\begin{aligned} & \hline 77- \\ & 5 \end{aligned}$ | $\begin{aligned} & 77- \\ & \hline 7 \end{aligned}$ | $\begin{array}{\|l\|} \hline 77- \\ \hline 8 \end{array}$ | $\begin{aligned} & \hline 77- \\ & 9 \end{aligned}$ | $\begin{aligned} & \hline 77- \\ & 10 \end{aligned}$ | $\begin{aligned} & \hline 77 \\ & \text { A- } \\ & 1 \end{aligned}$ | $\begin{aligned} & 104 \\ & -2 \end{aligned}$ | $\begin{aligned} & \hline 104 \\ & -4 \end{aligned}$ | $\begin{aligned} & \hline 104 \\ & -1 \end{aligned}$ | 106 | $\begin{aligned} & \hline 107 \\ & -1 \end{aligned}$ | $\begin{aligned} & \hline 108 \\ & -1 \end{aligned}$ | $\begin{aligned} & \hline 16 \\ & 2-1 \end{aligned}$ | $\begin{aligned} & \hline 16 \\ & 2 \mathrm{~A} \end{aligned}$ | Lr gene/s | $\begin{aligned} & \text { Re } \\ & \text { ma } \\ & \text { rks } \end{aligned}$ |
| 1 | HS 507 <br> (C) | R | R | R | R | R | R | R | NG | R | S | NG | MR | NG | R | R | MR | R | R | R | R | R | R | Lr26+1+ |  |
| 2 | HS 562 <br> (C) | R | R | R | R | S | R | MS | R | S | S | R | S | S | R | S | R | S | R | R | R | R | R | Lr23+ |  |
| 3 | $\text { HPW } 349$ <br> (C) | R | R | R | R | R | MR | R | R | S | S | R | S | S | R | MS | R | MR | R | R | R | R | R | Lr13+10+ |  |
| 4 | HS 668 | R | R | R | R | R | R | R | R | S | S | R | S | R | R | S | R | R | R | R | R | R | R | $\begin{aligned} & \text { Lr26+23+1 } \\ & +3+ \\ & \hline \end{aligned}$ |  |
| 5 | $\text { VL } 907$ <br> (C) | R | R | R | R | R | R | R | R | R | R | R | S | R | R | MR | S | R | R | R | R | R | R | Lr26+ |  |
| 6 | VL 2036 | R | R | R | MS | MR | R | R | R | R | R | R | R | R | R | S | S | MS | R | R | R | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{R} \end{aligned}$ | R | $\begin{aligned} & \text { Lr23+10+2 } \\ & \mathrm{a}+ \end{aligned}$ |  |
| 7 | HS 681 | R | R | R | R | R | R | R | R | S | MS | R | R | MR | R | S | S | R | R | R | R | R | R | $\begin{aligned} & \text { Lr26+23+1 } \\ & + \\ & \hline \end{aligned}$ |  |
| 8 | VL 3022 | R | R | R | R | R | R | R | R | MS | R | R | MS | S | R | R | R | R | R | R | R | R | R | $L r 26+23+1$ |  |
| 9 | HS 680 | R | R | R | R | R | R | R | R | R | R | R | S | R | R | R | R | R | R | R | R | R | R | $\begin{aligned} & \text { Lr26+23+1 } \\ & 0+1+ \\ & \hline \end{aligned}$ |  |
| 10 | VL 3023 | R | R | R | R | R | R | R | R | S | R | R | MS | R | R | S | MR | R | R | R | R | R | R | Lr26+23+ |  |
| 11 | HPW 474 | R | R | R | R | MR | R | R | R | R | R | R | R | R | R | S | R | S | R | R | R | R | R | $\begin{aligned} & \text { Lr13+10+3 } \\ & +2 \mathrm{a}+ \\ & \hline \end{aligned}$ |  |
| 12 | UP 3069 | R | $\begin{array}{\|l\|} \hline \mathrm{M} \\ \mathrm{R} \end{array}$ | S | R | MS | S | S | S | S | MS | S | S | S | S | S | S | S | R | MS | R | R | R | - |  |
| 13 | HPW 473 | R | S | S | S | S | S | S | MS | S | S | S | S | S | S | S | R | S | R | R | R | S | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{R} \\ & \hline \end{aligned}$ | Lr13+3+ |  |
| 14 | $\text { VL } 892$ <br> (C) | R | S | R | R | R | R | R | R | S | S | MS | S | S | R | R | S | S | R | R | R | R | R | Lr13+10+ |  |
| 15 | VL 3024 | NG | NG | R | R | NG | R | R | R | R | R | R | MS | S | R | MS | R | R | R | R | R | R | R | $\begin{aligned} & \text { Lr26+23+1 } \\ & 0+1+ \\ & \hline \end{aligned}$ |  |
| 16 | $\text { HS } 490$ <br> (C) | R | S | R | R | R | R | R | R | S | MR | R | S | S | R | S | R | S | R | R | R | R | R | $\operatorname{Lr} 23+10+3$ |  |


| 17 | HS 679 | R | R | R | R | R | R | R | R | S | R | R | MS | R | R | S | S | R | R | R | R | R | R | Lr26+23+1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 | $\begin{aligned} & \text { DBW88 } \\ & \text { (C) } \end{aligned}$ | R | R | R | R | R | R | R | MS | S | S | R | S | S | R | R | R | R | R | R | R | R | R | $\begin{aligned} & \text { Lr13+10+3 } \\ & + \end{aligned}$ |  |
| 19 | $\begin{aligned} & \text { DBW187 } \\ & \text { (I) (C) } \\ & \hline \end{aligned}$ | R | R | R | R | R | R | R | R | R | MS | R | S | MS | R | R | R | R | R | R | R | R | R | Lr23+10+1 |  |
| 20 | $\begin{aligned} & \text { HD2967 } \\ & \text { (C) } \end{aligned}$ | R | R | R | R | R | R | R | R | S | R | R | S | S | R | R | R | R | R | R | R | R | R | Lr23+ |  |
| 21 | WH1105 <br> (C) | R | R | R | R | R | S | NG | MS | S | S | R | MR | MS | NG | R | R | R | R | R | R | $\begin{aligned} & \hline \mathrm{N} \\ & \mathrm{G} \end{aligned}$ | R | Lr13+ |  |
| 22 | $\begin{aligned} & \text { DBW222 } \\ & \text { (I) (C) } \end{aligned}$ | R | R | MS | R | R | R | R | R | R | R | R | S | R | R | R | R | R | R | R | R | R | R | Lr26+23+ |  |
| 23 | HD3086 <br> (C) | R | R | R | R | S | R | S | S | S | S | R | S | S | R | S | R | S | R | R | R | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{~S} \end{aligned}$ | R | $\operatorname{Lr} 13+10+3$ |  |
| 24 | $\begin{aligned} & \text { PBW840 } \\ & \text { M } \end{aligned}$ | R | R | R | R | R | R | R | R | R | R | NG | R | R | R | R | R | R | R | R | R | R | R | Lr26+ | R |
| 25 | PBW803 | R | R | R | R | R | R | R | R | R | R | R | R | R | R | MS | R | S | R | R | R | R | R | Lr23+3+2a |  |
| 26 | $\begin{aligned} & \text { PBW550 } \\ & \text { (C) } \end{aligned}$ | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr26+ | R |
| 27 | HD3334 | R | R | R | R | R | R | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{X} \\ & \hline \end{aligned}$ | R | S | MS | NG | MS | MR | R | R | S | R | R | R | R | R | R | $\begin{aligned} & \text { Lr26+23+1 } \\ & + \end{aligned}$ |  |
| 28 | $\begin{aligned} & \text { HD3059 } \\ & \text { (C) } \end{aligned}$ | R | R | R | R | R | R | R | MS | S | S | R | S | S | R | R | R | R | R | R | R | R | R | Lr13+3+ |  |
| 29 | HD3332 | R | R | R | R | R | R | R | R | S | R | R | S | S | S | S | S | R | R | R | R | R | R | Lr13+10+ |  |
| 30 | $\begin{aligned} & \text { DBW173 } \\ & \text { (C) } \end{aligned}$ | R | R | R | R | R | R | NG | R | MS | S | R | S | S | R | R | R | R | R | R | R | R | R | Lr26+10+3 |  |
| 31 | $\begin{aligned} & \text { WH1021 } \\ & \text { (C) } \end{aligned}$ | R | R | R | R | R | R | R | R | S | S | R | R | R | R | R | R | R | R | R | R | R | R | Lr26+1+ |  |
| 32 | PBW811 | R | R | R | R | R | S | R | R | S | R | R | S | R | S | S | R | R | R | R | R | R | R | Lr13+ |  |
| 33 | DBW291 | R | R | R | R | R | R | R | R | S | S | R | S | S | S | MS | S | R | R | R | R | R | R | $L r 13+10+1$ |  |
| 34 | WH1264 | R | M | R | R | S | R | R | R | R | R | R | R | R | R | S | S | MS | R | R | MR | R | R | Lr13+10+ |  |
| 35 | PBW812 | R | R | R | R | R | R | R | R | R | R | R | R | R | R | MS | R | S | R | R | R | R | R | Lr23+3+2a |  |
| 36 | JKW261 | R | S | R | MR | MS | R | R | R | R | R | R | MR | R | R | R | S | MR | R | R | R | R | R | Lr23+13+ |  |
| 37 | DBW290 | R | R | R | R | MS | R | R | R | MS | R | R | R | R | R | S | S | MS | R | R | R | S | $\begin{aligned} & \mathrm{M} \\ & \mathrm{~S} \end{aligned}$ | Lr13+10+ |  |
| 38 | PBW771 <br> (I) (C) | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr26+23+1 | R |
| 39 | PBW813 | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | - | R |


| 40 | $\begin{aligned} & \text { HD3331\# } \\ & \text { WB } \end{aligned}$ | R | R | R | MS | MS | S | R | MR | S | R | R | S | S | R | S | R | S | R | R | R | R | R | $\begin{aligned} & \hline \text { Lr23+13+ } \\ & 3+ \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 41 | HD3298* | R | R | R | R | R | R | R | R | MS | R | R | R | R | R | S | S | S | R | R | R | R | R | Lr23+2a |  |  |
| 42 | WH1124 <br> (C) | R | R | R | R | MS | R | S | MS | S | MS | R | S | S | R | S | R | S | R | R | R | R | R | $L r 13+10+3$ |  |  |
| 43 | UP3033 | R | R | R | R | MS | R | R | R | S | R | R | R | R | R | MS | R | R | R | R | R | R | R | Lr26+10+3 |  |  |
| 44 | HUW838\# WB | R | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{R} \end{aligned}$ | NG | R | R | R | MS | MS | S | MS | R | R | S | NG | S | R | R | R | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{R} \end{aligned}$ | R | R | R | $\begin{aligned} & \text { Lr13+10+3 } \\ & + \end{aligned}$ |  |  |
| 45 | $\begin{aligned} & \text { HD3043 } \\ & \text { (C) } \end{aligned}$ | R | R | R | R | MS | R | S | R | S | S | R | S | S | R | S | S | R | R | R | R | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{~S} \end{aligned}$ | R | Lr26+23+ |  |  |
| 46 | $\begin{aligned} & \text { PBW644 } \\ & \text { (C) } \end{aligned}$ | R | R | R | R | R | R | R | MS | S | R | R | S | S | MS | S | S | S | R | R | R | R | R | Lr13+1+ |  |  |
| 47 | DBW296 | R | S | R | MS | S | R | R | MS | S | R | R | MS | S | S | S | S | S | R | R | R | R | R | $\begin{aligned} & \text { Lr23+13+1 } \\ & 0+ \\ & \hline \end{aligned}$ |  |  |
| 48 | $\begin{aligned} & \begin{array}{l} \text { HI1628(I) } \\ \text { (C) } \end{array} \\ & \hline \end{aligned}$ | R | R | R | R | R | S | R | MS | S | R | R | S | S | S | R | S | S | R | R | R | R | R | Lr13+10+ |  |  |
| 49 | WH1080 $(\mathrm{C})$ | R | R | R | S | MS | S | R | S | S | MR | R | S | S | S | S | R | S | R | R | R | S | R | Lr13+3+ |  |  |
| 50 | JAUW672 | R | R | R | MS | MS | S | R | MS | S | S | R | S | S | R | S | S | S | R | R | R | R | R | Lr23+13+ |  |  |
| 51 | WH1142 <br> (C) | R | R | R | R | MS | R | R | R | S | MS | R | R | R | R | S | R | R | R | R | R | S | R | $\begin{aligned} & \text { Lr26+23+1 } \\ & 0+3+ \end{aligned}$ |  |  |
| 52 | $\begin{aligned} & \text { NIAW317 } \\ & 0(\mathrm{I})(\mathrm{C}) \\ & \hline \end{aligned}$ | R | R | R | R | R | R | R | S | S | R | R | MS | S | R | R | S | R | R | R | R | R | R | Lr13+10+1 |  |  |
| 53 | PBW804 | R | S | R | S | S | S | R | S | S | R | R | R | S | R | S | S | S | R | R | R | R | R | Lr13+ |  |  |
| 54 | $\begin{aligned} & \text { DBW187 } \\ & \text { (C) } \end{aligned}$ | R | R | R | R | R | R | R | R | MS | MS | R | S | MS | R | R | R | R | R | R | R | R | R | Lr23+10+1 |  |  |
| 55 | K1006 (C) | R | R | R | R | R | S | R | R | S | S | R | S | S | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{R} \\ & \hline \end{aligned}$ | S | S | R | R | R | R | R | R | Lr13+1+ |  |  |
| 56 | $\begin{aligned} & \text { DBW39 } \\ & \text { (C) } \\ & \hline \end{aligned}$ | R | R | R | R | R | R | R | R | S | R | R | R | R | R | R | S | R | R | R | R | R | R | $\begin{aligned} & \hline \begin{array}{l} \text { Lr26+23+1 } \\ 0+ \end{array} \end{aligned}$ |  |  |
| 57 | $\begin{aligned} & \text { HD3249(I) } \\ & \text { (C) } \end{aligned}$ | R | R | R | R | R | R | R | R | S | R | R | S | S | R | R | R | R | R | R | R | R | R | Lr13+10+ |  |  |
| 58 | $\begin{aligned} & \text { HD2733 } \\ & \text { (C) } \\ & \hline \end{aligned}$ | R | R | MS | S | S | R | R | R | M | R | R | S | S | R | S | S | R | R | R | R | R | R | Lr26+34+ |  |  |
| 59 | $\begin{aligned} & \text { HD3171 } \\ & \text { (C) } \end{aligned}$ | R | S | R | R | MS | NG | R | MS | MS | R | R | S | S | R | R | R | R | R | R | R | R | R | $\begin{aligned} & \text { Lr23+13+1 } \\ & 0+ \end{aligned}$ |  |  |
| 60 | HD2888 <br> (C) | R | R | R | R | R | R | R | R | S | R | R | S | R | R | S | S | R | R | R | R | R | R | Seed* |  |  |


| 61 | HD3293* | R | R | R | R | MR | R | R | R | R | R | R | S | MS | R | M | S | MS | R | R | R | R | R | Lr13+10+ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 62 | K1317 (C) | R | R | R | R | R | S | R | MS | S | R | MS | S | S | R | S | S | S | R | R | R | R | R | Lr26+1+ |  |
| 63 | HI1612 <br> (C) | R | S | R | R | R | R | R | R | S | R | R | R | R | R | S | S | S | R | R | R | R | R | Lr23+ |  |
| 64 | $\begin{aligned} & \text { DBW252 } \\ & \text { (I) (C) } \end{aligned}$ | R | R | R | R | R | R | R | R | S | R | R | MS | S | R | R | S | R | R | R | R | R | R | Lr13+10+ |  |
| 65 | WHD964 <br> (d) | R | S | R | S | MS | R | R | R | MS | R | R | MS | R | NG | S | S | S | R | R | R | R | R | Lr23+13+ |  |
| 66 | $\begin{aligned} & \text { DDW48(d } \\ & \text { )Q* } \\ & \hline \end{aligned}$ | S | R | R | R | R | R | R | R | R | R | R | S | S | R | R | S | R | S | R | R | R | R | ${ }^{-}$ |  |
| 67 | $\begin{aligned} & \text { MACS622 } \\ & 2(\mathrm{C}) \end{aligned}$ | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr24+ | R |
| 68 | $\begin{aligned} & \text { MACS394 } \\ & 9(\mathrm{~d})(\mathrm{C}) \end{aligned}$ | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R |
| 69 | HI8818(d) | R | R | R | R | MS | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr23+10+ |  |
| 70 | UAS428 <br> (d) (C) | MS | S | R | S | S | R | R | R | S | R | R | MS | S | R | S | S | S | R | R | R | R | R | Lr23+ |  |
| 71 | DDW49 <br> (d) $\mathrm{Q}^{*}$ | R | S | R | S | MS | R | R | R | R | R | R | S | R | R | S | S | MS | R | R | R | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{~S} \end{aligned}$ | R | Lr18+ |  |
| 72 | GW322 <br> (C) | R | R | R | R | R | S | R | S | S | S | R | S | S | S | R | MS | R | R | R | R | R | R | Lr13+1+ |  |
| 73 | GW519 | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr24+ | R |
| 74 | HI1646 | R | R | R | R | R | R | S | R | S | S | R | S | S | R | R | S | R | R | R | R | R | R | $\begin{aligned} & \text { Lr13+10+1 } \\ & + \\ & \hline \end{aligned}$ |  |
| 75 | $\begin{aligned} & \text { HD3090 } \\ & \text { (C) } \\ & \hline \end{aligned}$ | R | R | R | R | R | NG | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr26+ | R |
| 76 | $\begin{aligned} & \text { RAJ4083 } \\ & \text { (C) } \end{aligned}$ | R | S | R | R | R | S | MS | R | S | S | MS | S | S | R | S | S | S | R | R | R | R | R | Lr13+ |  |
| 77 | UAS3008 | R | R | R | R | R | MS | R | R | S | R | R | MS | MS | S | R | S | R | R | R | R | R | R | Lr13+1+ |  |
| 78 | $\begin{aligned} & \text { MACS674 } \\ & 9 \end{aligned}$ | R | R | R | R | R | R | R | R | R | R | NG | R | R | R | R | R | R | R | R | R | R | R | Lr24+ | R |
| 79 | HD2932 (C) | R | S | S | S | S | S | R | S | S | S | S | S | S | R | S | S | S | R | S | NG | S | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{~S} \end{aligned}$ | Lr13+ |  |
| 80 | HI1641 | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R |
| 81 | HI1642 | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R |
| 82 | HI1633* | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr26+ | R |


| 83 | $\begin{aligned} & \text { MACS675 } \\ & 2 \end{aligned}$ | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 84 | $\begin{aligned} & \hline \text { NIDW } \\ & 1149(\mathrm{~d}) * \end{aligned}$ | R | MS | R | R | R | R | R | R | R | R | R | R | R | R | S | S | R | R | R | R | R | R | Lr23+ |  |
| 85 | UAS446 <br> (d) (C) | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R |
| 86 | $\text { HI } 1605$ <br> (C) | R | M | S | S | MR | S | S | R | S | R | MS | S | S | R | S | S | S | R | R | R | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{~S} \end{aligned}$ | Lr13+ |  |
| 87 | $\begin{aligned} & \text { MACS } \\ & 4087(\mathrm{~d}) \end{aligned}$ | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | - | R |
| 88 | MP 1358 | R | R | R | R | R | R | R | R | S | NG | R | S | MS | R | R | R | R | R | R | R | R | R | Lr23+10+ |  |
| 89 | $\begin{aligned} & \text { AKDW } \\ & 2997-16(\mathrm{~d}) \\ & \text { (C) } \\ & \hline \end{aligned}$ | R | R | MS | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | $\begin{aligned} & \mathrm{M} \\ & \mathrm{~S} \end{aligned}$ | R | Lr23+ |  |
| 90 | $\begin{aligned} & \text { HI8805(d) } \\ & \text { (I) (C) } \end{aligned}$ | S | S | R | MR | S | R | R | R | R | R | R | R | R | R | S | S | MR | R | R | R | R | R | Lr23+ |  |
| 91 | $\begin{aligned} & \text { UAS } \\ & 472(\mathrm{~d}) \end{aligned}$ | S | S | MS | MS | MR | R | MS | R | MS | R | R | R | R | R | S | S | MS | S | R | R | S | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{~S} \end{aligned}$ | - |  |
| 92 | $\begin{aligned} & \hline \text { MPO } \\ & 1357(\mathrm{~d})^{\mathrm{Q}} \end{aligned}$ | R | S | R | S | S | R | R | R | R | R | R | R | R | R | S | S | MS | S | R | R | R | R | Lr23+ |  |
| 93 | $\begin{aligned} & \text { NIAW317 } \\ & 0(\mathrm{I})(\mathrm{C}) \end{aligned}$ | R | R | R | R | R | R | R | MS | MS | MS | R | S | MS | R | R | S | R | R | R | R | R | R | $\begin{aligned} & \hline L r 13+10+1 \\ & + \end{aligned}$ |  |
| 94 | $\begin{aligned} & \text { MACS505 } \\ & 5 \end{aligned}$ | S | MS | R | R | R | R | R | R | S | R | R | MS | R | S | R | S | MS | S | R | R | R | R | Lr23+ |  |
| 95 | MACS622 <br> 2 (aest.) <br> (C) | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr24+ | R |
| 96 | $\begin{aligned} & \text { DDK1029 } \\ & \text { (C) } \end{aligned}$ | S | R | R | R | R | R | R | R | R | R | R | R | R | R | R | S | R | MS | R | R | S | R | Lr13+ |  |
| 97 | $\begin{aligned} & \text { MACS505 } \\ & 4 \end{aligned}$ | S | R | R | R | R | R | R | R | R | R | R | R | R | R | R | S | MS | MS | R | R | R | R | - |  |
| 98 | DDK1058 | S | MS | R | R | R | R | R | R | R | R | R | R | R | R | R | S | R | S | R | R | R | R | - |  |
| 99 | $\begin{aligned} & \text { HW1098 } \\ & \text { (C) } \end{aligned}$ | MS | S | MS | R | R | NG | R | R | MR | R | R | R | R | R | R | S | R | S | R | R | $\begin{aligned} & \hline \mathrm{N} \\ & \mathrm{G} \end{aligned}$ | R | Lr18+ |  |
| 100 | DDK1059 | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{R} \end{aligned}$ | R | MS | MR | R | R | R | R | R | R | R | R | R | R | R | S | R | S | R | R | R | R | - |  |
| 101 | DBW327 | R | R | R | R | R | R | R | MS | S | MS | R | S | S | R | R | S | R | R | R | R | R | R | Lr23+1+ |  |
| 102 | $\begin{aligned} & \text { HD3086 } \\ & \text { (C) } \end{aligned}$ | R | R | R | R | S | R | S | S | S | S | R | S | S | R | S | R | S | R | R | R | $\begin{aligned} & \mathrm{M} \\ & \mathrm{~S} \end{aligned}$ | R | $\operatorname{Lr} 13+10+3$ |  |


| 103 | DBW332 | R | R | R | R | R | S | R | R | MR | MS | R | R | R | R | R | R | R | R | R | R | R | R | Lr13+1+ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 104 | DBW303* | R | R | MS | R | R | S | R | MS | S | R | R | MS | R | S | R | R | MS | R | R | R | R | R | Lr13+ |  |
| 105 | HD2967 <br> (C) | R | R | R | R | R | R | R | R | R | R | R | S | S | R | R | R | R | R | R | R | R | R | Lr23+ |  |
| 106 | DBW187* | R | R | R | R | R | R | R | R | MR | S | R | MS | MR | R | S | R | R | R | R | R | R | R | Lr23+10+1 |  |
| 107 | DBW329 | R | R | R | R | R | S | R | S | S | R | R | S | S | S | MS | S | R | R | R | R | R | R | Lr13+1+ |  |
| 108 | WH1252 | R | S | S | S | MS | S | R | S | S | R | R | S | S | S | S | S | S | R | R | R | R | R | Lr13+ |  |
| 109 | HD3378 | R | R | R | R | R | R | R | MS | S | S | R | S | S | R | S | S | R | R | R | R | R | R | Lr23+1+ |  |
| 110 | WH1270* | R | R | R | R | R | MS | R | MS | S | R | R | S | NG | R | R | R | R | R | R | R | R | R | Lr23+ |  |
| 111 | DBW333 | R | R | R | R | R | R | MS | R | S | R | R | R | MS | S | R | S | R | R | R | R | R | R | $\operatorname{Lr} 13+10+1$ |  |
| 112 | DBW330 | R | R | R | R | R | MS | R | R | R | R | R | S | MS | R | R | M | R | R | R | R | R | R | Lr13+10+ |  |
| 113 | DBW328 | R | R | R | R | R | R | R | R | R | R | R | MS | R | R | R | R | R | R | R | R | R | R | Lr23+10+1 |  |
| 114 | DBW331 | R | R | R | R | R | R | R | R | MR | R | R | R | S | R | R | R | R | R | R | R | R | R | $\begin{aligned} & \text { Lr23+10+1 } \\ & + \end{aligned}$ |  |
| 115 | TAW155 | R | R | R | R | R | R | R | R | S | MS | R | R | R | S | R | R | R | R | R | R | R | R | $\begin{aligned} & \text { Lr13+10+1 } \\ & +2 \mathrm{a}+ \\ & \hline \end{aligned}$ |  |
| 116 | HI1636 | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr24+ | R |
| 117 | MP1361 | R | R | R | R | R | R | R | R | R | R | R | MS | R | S | R | R | R | R | R | R | R | R | $\operatorname{Lr} 13+10+1$ |  |
| 118 | $\begin{aligned} & \text { MACS674 } \\ & 7 \end{aligned}$ | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr24+ | R |
| 119 | HD3377 ${ }^{\text {B }}$ | R | R | R | R | R | R | R | MR | S | S | R | S | S | R | R | R | R | R | R | R | R | R | Lr23+1+ |  |
| 120 | HI1637 | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr24+ | R |
| 121 | RAJ4541 ${ }^{\text {B }}$ | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr24+ | R |
| 122 | GW513 | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr24+ | R |
| 123 | GW322 | R | R | R | R | R | S | R | MS | S | MS | R | S | MS | MS | R | R | R | R | R | R | R | R | Lr13+1+ |  |
| 124 | HI1544 | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | $\begin{aligned} & \hline \mathrm{N} \\ & \mathrm{G} \end{aligned}$ | $\begin{aligned} & \hline \mathrm{N} \\ & \mathrm{G} \end{aligned}$ | Lr24+ | R |
| 125 | HI1634 ${ }^{\text {Q }}$ | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr26+ | R |
| 126 | HD2932 | R | S | S | S | S | S | R | S | S | S | S | S | S | R | S | S | S | R | S | NG | S | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{~S} \end{aligned}$ | Lr13+ |  |
| 127 | MP3336 | R | S | S | R | S | R | R | S | S | S | R | S | R | R | S | S | R | R | R | R | R | R | Lr13+ |  |
| 128 | HD2864 | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr24+ | R |
| 129 | CG1029* | R | R | R | R | R | NG | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | $\begin{aligned} & \hline \mathrm{N} \\ & \mathrm{G} \\ & \hline \end{aligned}$ | Lr24+ | R |


| 130 | MPO1357 <br> (d) | R | S | R | S | S | R | R | R | R | R | R | R | R | R | S | S | MS | S | R | R | R | R | Lr23+ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 131 | HI8627(d) | S | S | R | MS | MS | R | S | R | R | R | R | MR | R | R | S | S | MS | R | R | R | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{R} \end{aligned}$ | S | Lr13+ |  |
| 132 | $\begin{aligned} & \text { UAS466(d } \\ & \text { )(I) } \end{aligned}$ | R | R | R | R | R | R | R | R | R | R | R | R | R | R | S | R | R | R | R | R | R | R | Lr13+ |  |
| 133 | UAS472(d | S | S | MS | MS | R | R | MS | R | MS | R | R | R | R | R | S | S | R | R | R | R | R | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{~S} \end{aligned}$ | - |  |
| 134 | DBW110 | NG | R | NG | R | R | R | R | S | S | NG | S | NG | R | NG | R | S | R | R | R | R | R | R | Lr23+10+ |  |
| 135 | MP3288 | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | Lr24+ | R |
| 136 | HI 8823(d) | S | S | MS | S | S | R | MS | R | MS | R | R | MS | R | R | S | S | MS | R | R | R | $\begin{aligned} & \mathrm{M} \\ & \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \hline \mathrm{M} \\ & \mathrm{~S} \\ & \hline \end{aligned}$ | - |  |
| 137 | $\begin{aligned} & \text { DDW47(d } \\ & \text { (I) } \end{aligned}$ | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

