**APPENDIX**

**Appendix Table. 1. Mean performance of 36 garlic genotypes for 18 quantitative characters – BARC in 2020**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | |  |  |  |  | |  | |  |  | |  | |  | |  |
| Genotype | DE | | DM | PH | LL | LW | | NLP | ND | | HI | | BL | | BD |
| G-158-3/95 | 8.00b | | 112.3b | 37a-h | 24.69a-i | 1.47a-f | | 8.33c-h | 0.42d | | 83.70d-h | | 3.47a-f | | 3.68a-e |
| G-011/95 | 8.00b | | 109.7b-c | 34.5a-j | 25.18a-h | 1.53a-e | | 8.72b-g | 0.48d | | 80.58a-d | | 3.27a-i | | 3.43a-k |
| G-20-2/94 | 8.00b | | 109.3b-c | 34.89a-j | 21.58c-j | 0.92e-h | | 7.94c-i | 0.42d | | 69.56f-j | | 2.83i-p | | 3.00j-o |
| G-064/04 | 7.33b-c | | 110b | 32.89e-j | 24.50a-i | 1.12d-h | | 7.89c-i | 0.41d | | 79.60e-i | | 3.10c-l | | 3.26d-m |
| G-092-3/95 | 7.67b | | 110b | 40.5a-d | 29.56a-b | 1.47a-f | | 9.33a-d | 2.88a | | 79.53a-h | | 3.48a-e | | 3.57a-g |
| G-70-2/94 | 8.00b | | 105.7b | 36.39a-j | 24.60a-i | 1.21c-h | | 7.50e-k | 0.49d | | 79.84a-j | | 3.40a-g | | 3.54a-h |
| G-013/04 | 8.00b | | 109.7b-c | 38.16a-g | 22.45c-i | 1.95a | | 9.44a-c | 1.55a-d | | 77.00a-g | | 3.00e-o | | 3.28d-m |
| G-145/06 | 7.33b-c | | 109.3b-d | 34.89a-j | 24.50a-i | 1.17c-h | | 7.50e-k | 0.41d | | 74.10i-k | | 2.88h-p | | 3.03i-o |
| G-20-2/95 | 8.00b | | 108.3b | 34.56a-j | 25.08a-i | 1.36a-g | | 8.11c-i | 0.46d | | 81.93a-k | | 3.05c-n | | 3.37b-l |
| G-129/06 | 10.00a | | 104.3a | 29.72i-k | 20.22f-i | 0.78g-h | | 6.22k | 0.29d | | 71.15a-g | | 2.57n-q | | 2.86m-o |
| G-052/06 | 8.00b | | 111b | 38.83a-f | 28.00a-d | 1.52a-e | | 9.33a-d | 1.06c-d | | 76.40c-j | | 3.02e-o | | 3.16f-m |
| G-002-3/94 | 8.00b | | 108b | 37.16a-g | 20.51f-i | 1.32a-g | | 7.80d-k | 0.48d | | 81.40d-l | | 3.15b-k | | 3.47a-j |
| G-119/06 | 8.00b | | 125.3a | 25.61k | 18.09i | 0.62h | | 6.28j-k | 0.25d | | 74.03a | | 2.78j-p | | 2.94k-o |
| G-057/06 | 7.67b | | 111.3b | 33.61c-j | 26.64a-f | 1.39a-g | | 8.78a-f | 1.54a-d | | 73.24a-b | | 2.67k-q | | 2.87l-o |
| G-090/06 | 6.67c-d | | 104.7b-c | 29.89h-k | 18.96h-i | 0.81g-h | | 7.28f-k | 0.31d | | 83.56b | | 2.99f-p | | 3.18e-m |
| G-001/04 | 8.00b | | 112b | 33.66c-j | 21.49d-i | 1.25b-h | | 8.00c-i | 0.45d | | 72.18d-g | | 2.29q | | 2.54o |
| G-103/06 | 8.00b | | 107b | 31.78f-k | 22.46c-i | 1.13d-h | | 7.61e-k | 0.33d | | 85.50a-e | | 2.91g-p | | 3.11g-n |
| G-03-1/02 | 8.00b | | 105b | 29.33i-k | 21.29d-i | 0.88f-h | | 7.83d-j | 0.31d | | 72.93a-f | | 2.54o-q | | 2.64n-o |
| G-121-2A/94 | 8.00b | | 106b | 28.83j-k | 21.87c-i | 1.094d-h | | 7.06h-k | 0.37d | | 78.24b-j | | 2.53p-q | | 3.01j-o |
| G-089/04 | 6.00d | | 110b | 41.16a-b | 22.75b-i | 1.41a-g | | 9.28a-d | 0.49d | | 81.57a-e | | 3.53a-c | | 3.70a-d |
| G-152/06 | 7.33b-c | | 107.3b-c | 35.11a-j | 20.80e-i | 1.13d-h | | 7.89c-i | 0.39d | | 79.37f-j | | 3.17b-j | | 3.33c-m |
| G-36-2/94 | 6.67c-d | | 107.3b-c | 38.89a-f | 24.21a-i | 1.88a-b | | 9.05a-e | 0.51d | | 86.68h-m | | 3.68a | | 3.92a |
| G-110/06 | 7.33b-c | | 108b | 37a-h | 26.54a-g | 1.50a-f | | 8.28c-i | 1.02c-d | | 88.03j-k | | 3.18b-j | | 3.64a-f |
| G-024/04 | 8.00b | | 105b | 35a-j | 27.61a-e | 1.41a-g | | 8.72b-g | 1.39a-d | | 72.38g-i | | 2.60m-q | | 3.04h-o |

**Appendix Table 1 (*Continued*)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Genotype | | | DE | | | DM | | | PH | | LL | | LW | | | NLP | | | ND | | | HI% | | | BL | | | BD | | |
| G-134/06 | | 8.00b | | | 109.7b | | | 33.33d-j | 19.54g-i | | 1.04d-h | | 7.83d-j | | | 2.21a-c | | | 76.89d-j | | | 2.92g-p | | | 3.28d-m | | |
| G-032/02 | | 7.33b-c | | | 109.7b-c | | | 40.56a-d | 26.96a | | 1.58a-d | | 8.67b-g | | | 0.47d | | | 82.33a-e | | | 3.69a | | | 3.86a-b | | |
| G-099/04 | | 8.00b | | | 109.7b | | | 34.05b-j | 20.51f-i | | 0.97d-h | | 7.94c-i | | | 0.34d | | | 70.90b-d | | | 2.89h-p | | | 3.10g-n | | |
| G-046/06 | | 8.00b | | | 110b | | | 31.33g-k | 18.47h-i | | 0.99d-h | | 7.17g-k | | | 0.36d | | | 78.32e-g | | | 2.66i-p | | | 2.86l-o | | |
| G-32-1/94 | | 8.00b | | | 108.3b | | | 38.78a-f | 26.93a-f | | 1.80a-c | | 8.89a-e | | | 1.04c-d | | | 77.11i-n | | | 3.61a-b | | | 3.81a-c | | |
| G-015/06 | | 8.00b | | | 110.3b | | | 34.5a-j | 24.38a-e | | 1.22c-h | | 8.17c-i | | | 0.34d | | | 72.36a-j | | | 2.93g-p | | | 3.14f-n | | |
| G-019/02 | | 8.00b | | | 104.7b | | | 33.83c-j | 20.67b-i | | 1.31b-g | | 6.72i-k | | | 0.33d | | | 83.28c-j | | | 2.67k-q | | | 3.00j-o | | |
| G-069/06 | | 8.00b | | | 110.7b | | | 39.83a-e | 28.58a-c | | 1.42a-g | | 9.94a-b | | | 1.11b-d | | | 79.70a-c | | | 3.07c-m | | | 3.33c-m | | |
| G-040/06 | | 8.00b | | | 111b | | | 41.61a | 27.22a-f | | 1.53a-e | | 10.33a | | | 2.64a-b | | | 83.02a-e | | | 3.49a-d | | | 3.64a-f | | |
| G-059/06 | | 8.00b | | | 109.7b | | | 40.33a-d | 24.60a-i | | 1.53a-e | | 8.78a-f | | | 1.09b-d | | | 85.34c-i | | | 3.34a-h | | | 3.52a-i | | |
| G-HL | | 8.00b | | | 106.7b | | | 36.5a-i | 24.21a-i | | 1.58a-d | | 8.33c-h | | | 0.46d | | | 82.35a-i | | | 3.30a-i | | | 3.39b-k | | |
| G-Chefe | | 7.33b-c | | | 112.3b-c | | | 40.83a-c | 27.71a-e | | 1.47a-f | | 9.28a-d | | | 2.09a-c | | | 79.35a-e | | | 2.94g-p | | | 3.33c-m | | |
| Max | | | | 10 | | | 136 | | 48.5 | | 35.88 | | 3.02 | | | 11.33 | | | 6.88 | | | 92.82 | | | 4.3 | | | 4.23 | | |
| Min | | | | 6 | | | 102 | | 22.33 | | 15.17 | | 0.52 | | | 5.33 | | | 0.17 | | | 55.52 | | | 1.85 | | | 2.03 | | |
| Mean | | | | 7.80 | | | 109.15 | | 35.41 | | 13.70 | | 1.30 | | | 8.23 | | | 0.81 | | | 80.76 | | | 3.05 | | | 3.27 | | |
| CV% | | | | 7.3 | | | 3.33 | | 12.58 | | 19.87 | | 30.56 | | | 11.88 | | | 15.02 | | | 9.31 | | | 9.98 | | | 9.84 | | |
| LSD | | | | 0.92 | | | 5.74 | | 7.23 | | 4.04 | | 0.64 | | | 1.59 | | | 1.56 | | | 11.97 | | | 0.49 | | | 0.51 | | |

**Appendix Table 1 (*Continued*)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Genotype | BW | CL | CD | CW | NCPB | BYPL | BYPT | BYPH/kg |
| G-158-3/95 | 26.28a-c | 2.40a-d | 1.40a-d | 2.70a-f | 11.78a-b | 34.14b-c | 40.79a-e | 113.80b-c |
| G-011/95 | 20.04c-h | 1.78d-j | 1.10a | 2.30c-i | 11.66a-c | 26.14e-j | 32.44c-j | 87.10e-j |
| G-20-2/94 | 16.93e-j | 1.60f-j | 1.00a-e | 2.20a-e | 10.61b-e | 21.11e-j | 30.35g-k | 70.40e-j |
| G-064/04 | 20.63b-h | 2.02a-h | 1.40e-h | 2.50d-j | 7.72e-n | 27.74d-j | 34.85c-i | 92.50d-j |
| G-092-3/95 | 24.3a-f | 2.26a-f | 1.40e-g | 2.50b-i | 10.90b-d | 41.89a-b | 52.67b-h | 139.6b-h |
| G-70-2/94 | 25.26a-e | 2.41a-d | 1.40d-f | 2.81a | 7.17i-n | 29.71b-h | 37.21b-g | 99.00b-g |
| G-013/04 | 18.39c-j | 1.72e-j | 1.30a-b | 2.20h-l | 11.72a-b | 26.79c-i | 34.79c-j | 89.30c-j |
| G-145/06 | 17.29d-j | 1.55g-j | 1.10a | 2.20d-j | 6.55k-n | 21.52e-k | 29.04c-j | 71.70c-j |
| G-20-2/95 | 19.00c-i | 2.14a-g | 1.40n-o | 2.78i-m | 6.83j-n | 23.9d-k | 29.17h-j | 79.70c-j |
| G-129/06 | 11.24i-j | 1.14i-j | 1.30g-j | 2.20h-k | 7.61f-n | 14.03j-k | 19.72b-c | 46.80h-j |
| G-052/06 | 17.92c-j | 1.63f-j | 1.30n | 2.50a-c | 9.78b-j | 27.74c-i | 36.31d-j | 92.50b-c |
| G-002-3/94 | 20.02c-h | 1.87c-h | 1.60d-j | 2.30g-k | 11.89a-b | 27.78c-i | 34.03d-j | 92.60d-j |
| G-119/06 | 14.69h-j | 1.68f-j | 1.30f-j | 2.40d-n | 5.06n | 18.36h-k | 24.80g-j | 61.20d-j |
| G-057/06 | 13.67h-j | 1.69f-j | 1.10a-i | 3.36a-n | 8.33d-m | 21.07g-k | 28.77b-g | 70.20g-j |
| G-090/06 | 19.09c-i | 1.74d-j | 1.20a-f | 2.20l-m | 6.00l-n | 23.59d-k | 28.23i-j | 78.60b-g |
| G-001/04 | 10.94i-j | 1.54g-j | 1.20k-n | 2.70a-d | 6.50k-n | 16.55i-k | 22.93e-j | 55.20i-j |
| G-103/06 | 18.24c-j | 1.75d-j | 1.30e-i | 2.20e-k | 4.89n | 22.53e-k | 26.35j | 75.10e-j |
| G-03-1/02 | 10.33j | 1.08j | 1.06a-d | 2.00i-j | 11.20a-d | 13.15k | 18.03g-j | 43.80j |
| G-121-2A/94 | 11.03i-j | 1.42h-j | 0.99d-n | 2.10l-o | 10.10b-i | 15.75i-k | 20.13b-f | 52.50g-j |
| G-089/04 | 26.04a-c | 2.38a-e | 1.50a-e | 2.50d-g | 14.11a | 33.94a-f | 41.61f-j | 113.10b-f |
| G-152/06 | 20.89b-h | 1.88c-h | 1.00d-n | 2.40a-b | 10.17b-h | 35.92c-j | 28.51a | 86.40f-j |
| G-36-2/94 | 29.23a-b | 2.69a | 1.92i-k | 3.18h-l | 11.56a-c | 41.13a-b | 47.45c-i | 137.10a |
| G-110/06 | 25.23a-e | 2.01a-h | 1.40e-g | 2.60e-i | 10.39b-g | 36.85a-c | 41.86h-j | 122.80c-i |
| G-024/04 | 14.74h-j | 1.81d-i | 1.20a-f | 2.10e-j | 8.28d-m | 21.17g-k | 29.25h-j | 70.60h-j |
| G-134/06 | 18.82c-j | 1.72e-j | 1.20a-f | 2.40h-m | 9.17b-k | 29.95b-h | 38.95h-j | 99.80h-j |
| G-032/02 | 30.52a | 2.60a-b | 1.70a-e | 3.07m-q | 8.72c-l | 36.06a-d | 43.8a | 120.2a |

**Appendix Table 1 (*Continued*)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Genotype | BW | CL | CD | CW | NCPB | BYPL | BYPT | BYPH/kg |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| G-099/04 | 16.95e-j | 1.57f-j | 1.50f-n | 2.40l-n | 5.89l-n | 21.22e-j | 29.93f-k | 70.70e-j |
| G-046/06 | 13.87h-j | 2.06a-h | 1.30n-o | 2.40f-k | 5.44m-n | 21.42b-e | 27.35e-k | 71.40b-e |
| G-32-1/94 | 29.78a | 2.56a-c | 1.30b-e | 2.80a-b | 10.00b-i | 44.16a-b | 57.27a | 147.20a-b |
| G-015/06 | 15.84f-j | 1.62f-j | 1.10a-d | 2.00j-o | 10.60b-f | 21.10g-j | 29.16g-k | 70.30g-j |
| G-019/02 | 15.30g-j | 1.66f-j | 1.20h-j | 2.20a-j | 8.30d-m | 19.32g-j | 23.20h-k | 64.40g-j |
| G-069/06 | 20.44c-h | 1.92b-h | 1.40a-i | 2.40c-g | 10.83b-d | 27.83f-j | 34.92c-d | 92.80f-j |
| G-040/06 | 25.77a-d | 2.38a-e | 1.40c-e | 3.61c-j | 11.33a-c | 36.29d-j | 43.71a-d | 121.00d-j |
| G-059/06 | 24.51a-e | 2.23a-f | 1.30a-b | 2.50a-d | 11.44a-c | 32.78b-h | 38.41a-g | 109.30b-h |
| G-HL | 23.90a-g | 2.22a-g | 1.40d-f | 2.50i-o | 7.50g-n | 29.86b-g | 36.26b-h | 99.50b-g |
| G-Chefe | 19.23c-i | 1.71e-j | 1.40f-i | 2.30h-n | 7.38h-n | 27.67b-d | 34.87c-i | 92.20b-d |
| Max | 36.62 | 3 | 2.08 | 5.5 | 15.83 | 58.16 | 69.76 | 193.9 |
| Mean | 19.84 | 1.9 | 1.31 | 2.49 | 9.09 | 26.67 | 33.36 | 88.9 |
| Min | 5.82 | 0.92 | 0.64 | 1.75 | 3.66 | 11.15 | 14.36 | 37.17 |
| CV% | 25.91 | 22.52 | 24.18 | 20.27 | 20.24 | 29.26 | 26.71 | 29.26 |
| LSD | 1.59 | 0.68 | 0.52 | 0.82 | 2.98 | 0.82 | 14.57 | 42.47 |

**Note**, DE = Days to emergence, DM = Days to maturity, PH = Plant height (cm), LL = Leaves length(cm), LW = Leaves width(cm), NLP = Number of leaves per plant, ND = Neck diameter (cm), BL= Bulb length(cm), BD = Bulb diameter (cm), BW = Bulb weight(g), CL = Clove length(cm), CD = Clove diameter (cm), CW = Clove weight (g), NCPB = Number of clove per bulb, BYPL = Yield per plot, BYPT = Biological yield per plant, BYPH = Bulb yield per hectare, HI = Harvest index (%), CV= Coefficient variation, LSD= Least significance difference