# CHAPTER FIVE

## 5. DISCUSSION

The specific objectives of this study were to evaluate genetic variation for drought tolerance in finger millet from Zambia, and to measure genetic relatedness among germplasm accessions collected in the country. The collection of accessions used for the study represented all important finger millet growing areas in the country.

Twelve putative traits of drought tolerance were studied. In trials with 10 varieties Agalodia *et al.* (1979) used grain weight and number of spikes per panicle to analyse parameters of variability and relationship with grain yield. Additionally, Abraham *et al.* (1989) also used effective tillers per plant, grain yield per plant and number of spikes per panicle also used in the current study. Mnyenyembe and Gupta (1997) employed nine traits to study variability in finger millet from Malawi and to identify accessions suitable for breeding. They included number of days to flowering, plant height, spike length and width, number of spikes per panicle, number of productive tillers, spike yield and finger blast severity [*Pyricularia grisea* (Cooke) Sacc].

Withdrawing water for 5 days during flowering did not affect grain yield in this study. This was consistent with findings of a similar study on phenotypic stability of yield in the crop in India. Fourteen varieties were studied. Linear regression of yield on environmental means indicated stability of a number of the varieties. Chandrasekharappa (1979) and Reddy (1977) in separate studies have also used the same duration of moisture stress. In Chandrasekharappa's (1979) study, stress at tillering or flowering reduced leaf area and number of productive tillers, and delayed flowering. In the same study stress at tillering had the greatest effect on yield, effectively reducing it by 38 %. Five to six days of soil moisture stress at flowering reduced grain yield by 21 %.

In studies on water requirements of finger millet, Rao (1978) found greatest values of growth and grain yield at 25 % depletion of available soil moisture throughout the growing season.. The cons umptive use of water was found to be 379 mm. In a later study the same researcher along with others confirmed Rao's (1978) findings (Rao *et al.,* 1981). In the current study soil moisture was maintained at field capacity during the rest of the irrigated part of the growing season.

In this study the imposed stress, however, significantly reduced spike length (3.4 %); highly significantly reduced biomass (3.1 %), leaf area duration (10.5), amount of chaff (40.0 %), pest and disease susceptibility (40.0 %), number of productive tillers (10.2 %) and spike yield (48.5 %); and highly significantly increased plant height (4.3 %) and days to flower (3.1 %).

There was significant variation among accessions only in spike yield under optimal conditions. In a study by Krishnasastry *et al.* (1982) on desirable plant characteristics for rainfed conditions, variance analysis showed significant positive correlation between biomass weight and yield. Average spike weight per unit was significantly correlated with yield. Varieties in which primary tillers decreased and secondary ones increased with stress had low yields. Varieties with high dry matter production, small leaf area and high average spike weight were recommended for rainfed conditions.

Measurements were more widely distributed under stress in number of productive tillers, days to 50 % flowering, spike and biomass weight. There was greater variability in number of productive tillers, spike width, stay-green characteristic; and spike, grain and chaff weight under stress. However, only variation in number of spikes per panicle was significant and in susceptibility to pests and diseases highly significant. Most of the variation in spike number and stay-green characteristic under stress was attributable to chance. There was greater relative variability of accessions under stress in number of productive tillers, days to 50 %

flowering, stay-green characteristic, spike weight and number, and biomass and chaff weight. Mnyenyembe and Gupta found significant differences among accessions from Malawi in all the nine traits studied. The same authors have cited Gupta and Mushonga (1992) who reported significant differences among accessions from Zimbabwe in grain yield, spike length, spike width at two locations, spike yield, days to flower, plant height and number of productive tillers at one location. They have also cited Kempanna and Thirumalachar (1968), Goud and Lakshmi (1977), Abraham *et al.* (1989) already cited in this report and Josh and Mehra (1989) who individually and severally found significant variation in grain yield, number of productive tillers, days to flower, plant height, spike length and number of spikes.

Three dendrograms depicting relationships among the 203 accessions and 4 check varieties were generated.

Genetic divergence plays an important role in plant breeding programmes because hybrids developed from diverse parents generally show more heterosis than those developed from closely related parents. In fescue heterosis increased with genetic divergence in morphological and phonological traits, and geographical origin of parents. In alfalfa and cotton, heterosis was associated with genetic diversity of parents involved in the crosses. In maize, greater difference between inbred lines resulted in greater heterosis their hybrids (Singh 1983 citing Moll and Stuber 1974).

Accessions could be grouped into many clusters according to 12 putative morphological and agronomic traits of drought tolerance. Jain *et al.* (1981) in a study on genetic divergence of 30 geographically diverse populations of the species could assign the populations to 13 clusters on the basis of the $D^2$ statistic and canonical analysis of 12 agronomic characters. Swaminath (1979) has also studied genetic diversity in the African collection of the species and their interaction with the environment. One hundred and seventy-five forms were

evaluated for 15 agronomic and 2 morphological characters and compared with 21 Indian forms. The African forms performed better in Kharif and winter seasons than, and equally in summer with, the Indian forms.

All clusters in the current study could be read between Euclidean Distance 0.84 and 1.00. There was obvious differentiation at both intercluster and intracluster levels. Clustering did not differ much with growth conditions. Neither was it connected with geographical origin. For example while the pattern of clustering in Figures 1 and 2 is similar, accessions at the bottom of the Y-axis are different. Under optimal conditions ZM 153 and ZM 3813 are the most divergent. On the other hand, under stress the most tolerant accession, ZM 3825 and FMM 175 are the most diverse. In addition in Figure 3 ZM 3825, ZM 3824, ZM 3819, ZM 3834, ZM 3783 and ZM 3816 collected from Luapula do not occur in the same cluster at shorter distances. They only occur in the same cluster together with accessions from other provinces at Euclidean distance 0.92. Jain *et al.* (1981) also did not find any association between clustering and geographical origin. They identified two highly divergent entries.

Placement in separate clusters showed wide divergence of the most tolerant accessions. Divergence of the tolerant accessions may help in selecting drought tolerant parents for crossing with high yielding mutant varieties developed by the national crop improvement programme (Singh, 1983) and used to study further genetic divergence.

The most tolerant accessions were obtained from at least 4 different districts in 3 provinces, and 6 of them were collected from the high rainfall region and 5 from the low rainfall region. This indicates some level of geographical separation and possible reason for genetic diversity.

# CHAPTER SIX

## 6. CONCLSION

There was significant reduction in spike length; highly significant reduction in biomass, leaf area duration, chaff, susceptibility to pests and diseases, number of productive tillers and spike yield; and highly significant increase in plant height and days to flower as a result of withdrawing water for 5 days during flowering. The Wooden Box Augmented Randomised Block Design detected significant variation in Zambian finger millet gene pool in spike yield under optimal conditions; significant differences in number of spikes per panicle and stay-green characteristic and highly significant variation in susceptibility to pests and diseases under stress

Only 3 traits, namely spike yield, number of spikes per panicle and stay-green characteristic, were sensitive to water stress and show significant variation at the same time. Since significant variation exists in spike yield under optimum conditions, and the trait significantly correlated with grain yield (Krishnasastry *et al.,*1982) and sensitive to water stress, it could be used to improve the latter trait. Similarly, susceptibility to pests and diseases and the stay-green characteristic were also sensitive to water stress and at the same time show significant variation among accessions under stress. They will be useful in selecting lines tolerant to water stress. The assumption that is being made here, nevertheless, is that less susceptible and genotypes with longer leaf area duration will be tolerant.

The simple measure of change with stress in accession attributes was used to obtain values of tolerance to water stress. The values were used to rank accessions according to tolerance to the stress in all 12 traits studied. Overall ranking showed ZM 3825, ZM 3920, ZM 1459, ZM 3906, ZM 3819, ZM 3834, ZM 203, ZM 40122, ZM 3816, ZM 229, ZM 3685, ZM 154, ZM

153, ZM 3824 and ZM 3783 to be more tolerant than the best check, Nyika. These accessions could be used to introgress drought tolerance in improved lines or varieties of the crop. Climate projections indicate that the environment in Zambia will be warmer and drier even in the high rainfall areas of the country where finger millet is an important crop. In order to ensure sustainable production of finger millet with climate change lines with tolerance to drought should be developed.

Nearest neighbour analysis using the dissimilarity coefficient, Euclidean Distance, was applied to generate 3 dendrograms depicting relationships among the 203 accessions and 4 check varieties evaluated based on 12 putative morphological and agronomic traits of drought tolerance. The genotypes could be consigned to several clusters. All clusters could be read between Euclidean Distance 0.84 and 1.00. Under optimal conditions ZM 153 and ZM 3813 were the most divergent. Under stress the most tolerant accession, ZM 3825, was the most diverse. Among the most tolerant accessions ZM 3834 and ZM 40 122 were the most closely related, and ZM 154 and ZM 203 the most divergent. There was obvious differentiation at both intercluster and intracluster levels. There was wide divergence among the most tolerant accessions. The maximum cluster distance was between the most drought tolerant accession (ZM 3825) and the recently released mutant variety, FMM 175. This also showed extensive divergence between the most tolerant and other accessions. The accession may be used to introgress drought tolerance in the mutant variety (Singh, 1983).

**References**

Abraham, M.J., A.S. Gupta and B.K. Sarma. Genetic Variability and Character Association of Yield and its Components in Finger Millet (*Eleusine coracana*) in an Acidic Soil of Meghala. *Indian Journal of Agricultural Sciences* (1989) **59** (9) 579 – 581 [En, 3 ref.] ICAR Research Complex for North-Eastern Hills Region, Shillong, Meghalaya 793 004, India.

Agalodia, A.V., K.B. Desai and S.B.S Tikka .1979. Analysis of the Parameters of Variability and Interrelationship of Yield Attributes in Finger Millet, *Indian Journal of Agricultural Sciences* (1979) **49** (12) 924 – 928 13 [En, ref.] Gujarat Agric. Univ., Navasari 396 450, Gujarat, India.

Ager, M. Perspectives on Food Security in Sub-Saharan Africa, Key Note Paper 1 Presented at 3rd SADC-EU Scientific Symposium, Lusaka, Zambia, 27th – 30th May 2008

Agrawal, B.L. Finger Millet [*Eleusine coracana* (L.) Gaertn.]. In: Zambia Seed Technology Handbook, Stephen Muliokela Ed. (1997) Ministry of Agriculture, Food and Fisheries. Printed in Sweden, Berlings, Arvlöv

Agrawal, B.L.; Siame, J.A and Uprichard. 1991 Status of finger millet [*Eleusine coracana* (Gaertn.) crop in Zambia-Country report from Zambia.

Banziger, M. and H.R. Lafitte. 1997. Efficiency of Secondary Traits for Improving Maize for Low-Nitrogen Target Environments. Crop Science, 37 pp 1110-7 (1997)

Banziger, M. And M.E. Cooper. 2001. Breeding for low-input conditions and consequences for participatory plant breeding – examples from tropical maize and wheat. *Euphytica, 122. 503 – 519*

Banziger, M., G.O. Edmeades, D. Beck and M. Bellon. 2000a. Breeding for drought and nitrogen stress tolerance in maize. From Theory to Practice. Mexico, D.F: CIMMYT

Banziger, M., G.O. Edmeades, D. Beck and M. Bellon. 2000b. Breeding for drought and nitrogen stress tolerance in maize. From Theory to Practice. Mexico, D.F: CIMMYT

Banziger, M., G.O. Edmeades and H.R. Lafitte. 1999. Selection for drought tolerance increases maize across a range of nitrogen levels. Crop Science, 39: 1035 – 1040

Banziger, M., G.O. Edmeades and H.R. Lafitte. 2002. Physiology mechanisms contributing to increased N stress tolerance of tropical maize selected for drought tolerance, *Field Crops Res. 75, 223 – 233*

Banziger, M., P.S. Setimela, D. Hodson and B. Vivek. 2006. Breeding for improved abiotic stress tolerance in maize adapted to Southern Africa, Agricultural Water Management, *80, 212 - 224*

Bennett, J. 2003. Opportunities for Increasing Water Productivity of CGIAR Crops through Plant Breeding and Molecular Biology. In: Water Productivity in Agriculture – Limits and Opportunities for Improvement (Ed. J.W. Kijne, R. Baker and D. Molden) 104 J. Bennett

Bos, I. June 7 – 18, 2004. Design of plant breeding programmes (22/43) – Selection of crop varieties, Selection methods 1, IAC/Wageningen UR

Buysse, W., R. Stern, R. Coe and C. Matere, 2007. GenStat Discovery Edition 3 for everyday use. ICRAF Nairobi, Kenya. 117 pp.

Chandra, S. November 10-14, 2003. PRINCIPLES OF EXPERIMENTAL DESIGN. ICRISAT/IAEA-RCA Regional Training Course on Methodology for Multilocational Trials and Selection of Mutants Tolerant to Abiotic Stresses.

Chandrasekharappa, T. 1979. Effect of different duration of soil moisture stress at different growth stages on growth and yield of finger millet (*Eleusine coracana* Gaertn.) in Visvesvaraya Canal Tract, Mandya. [Abstract]. Thesis, University of Agricultural Sciences, Bangalore, India. (1979) [En] Dep. Of Agron., Univ. of Agric. Sc. Bangalore 560 024, Karnataka, India. From *Mysore Journal of Agricultural Sciences 14, 460*

Chaugale, D.S. Jr., N. Gopalkrishna and G.A. Katwe. 1955. Bibliography of nagli (*Eleusine coracana*) (Linn.). Gaertn. Poona agric. Coll. Mag. **46** 245 - 247

Chiras, D.D. 1995. Environmental Science, *The Benjamin Cummings Publishing Co. Inc. California*

FAO. 2003. Mitigating the Impact of HIV/AIDS on Food Security and Rural Poverty, HIV/AIDS Programme

Hittalmani, S., S. Leong and K. Devos. 2006. Development of High Yielding, Disease Resistant, Drought Tolerant Finger Millet (*Eleusine coracana Gaertn.*) Genotypes. *Progress Report of the M^c Knight Foundation funded Project. IV^th Year 2005 – 6.*

Hulse, J.H., E.M. Laing and O.E. Pearson. 1980. Sorghum and Millets: Their Composition and Nutritive Value. Academic Press, A subsidiary of Harcourt Brace Jovanovich, Publishers, London, New York, Toronto, Sydney, San Francisco

Kajoba, G.M. 1995. Coping with Drought through Sustainable Agricultural Development in Zambia. Annex D7 In: *Summary of Proceedings of IUCN Drought Study Follow-up Workshop on the Environmental Impact of 1991 – 1992 Drought on Zambia*

Krishnasastry, K.S., M. Udayakumar and H.R. Viswanath. 1982. Desirable Plant Characteristics in Genotypes of Finger Millet (*Eleusine coracana* Gaertn) for Rainfed Conditions. *Proceedings of the Indian National Science Academy, B* (1982) **48** (2) 264 – 270 [En, 10 ref.] Univ. Agric. Sci., Bangalore, India.

Mehra, K.L. 1963. Differentiation of the cultivated and wild *Eleusine* species. *Phyton **21**,* 189 - 198

Melse-Boonstra, A., P. Hogenkamp and O.I. Lungu. May 2007. Mitigating HIV/AIDS in Sub-Saharan Africa through Selenium in Food, Golden Valley Agricultural Research Trust, P.O. Box 50834, Lusaka, Zambia. Email: gart@zamnet.zm

Muchinda, M.R. 1988. The Variability and Reliability of Annual Rainfall in Zambia. *Hydrometeorological Report No. 11, Department of Meteorology,* Lusaka.

Mungoma, C. and C. Mwambula. 1996. Drought and Low N in Zambia. The problems and breeding strategy. In: G.O. Edmeades, M. Banziger, H.R. Mickelson and C.D. Pena – Valdivia (eds), Development of Drought and Low N Tolerant Maize. Proceedings of a Symposium, March 25 – 29, 1996, CIMMYT, El Batan, Mexico.

Mnyenyembe, P.H. and S.C. Gupta. 1998. Variability for Grain Yield and Related Traits in Finger Millet Germplasm Accessions from Malawi. *African Crop Science Journal, Vol. 6 No. 3, pp 317 – 322*

NAP. National Agricultural Policy 2004 – 2015. Ministry of Agriculture and Cooperatives, Zambia.

National Food and Nutrition Commission. 2009. Zambia Food Composition Tables. 4th Ed.

Purseglove, J.W. 1972. "Tropical Crops". Monocotyledons 1. Longman Group Ltd., London

Rachie, K.O. and LeRoy V. Peters. 1977. THE ELEUSINES (A Review of the World Literature). ICRISAT

Rao, B.R. 1978. Studies on the Water Requirement of Kalyani Finger Millet (*Eleusine coracana* (L.) Gaertn.). *Thesis Abstracts* (1978) **4** (1) 21 [En] S.V. Agric. Coll., Tirupati 517 502, A.P., India.

Rao, B.R., T. B. Reddy, T.Y. Reddy, and G.H.S. Reddi. 1981. Scheduling Irrigation for Finger Millet. *Indian Journal of Agricultural Sciences* (1981) **26** (2) 189 – 190 [En, 1 ref.] Dep. Of Agron., Andra Pradesh Agric. Univ., Tirupati 517 502, A.P., India.

Reddy, V.C. 1977. Effect of soil moisture stress at different growth stages on growth and yield of finger millet (*Eleusine coracana* Gaertn.) [Abstract]. Thesis, University of Agricultural Sciences, Bangalore, Karnataka, India. (1977) [En] Dep. Of Agron. Coll. of Agric., Dharwar 580 005, Karnataka, India. From *Mysore Journal of Agricultural Sciences 12, 183 – 184*

Reid, P., R. Bolt, T. Uprichard, M. Silavwe and P. Sikana. December 1986. A Report on the Identification of Zones for Agricultural Research in the Northern Province of Zambia, Adaptive Research Planning Team, Northern Province.

Roger, P. 2004. The Healing Power of Foods. Inter-America Division Publishing Association (IADPA). Pg 95 – 106

Saba, J.M., M. Moghaadam, K. Ghassemi and M.R. Nishabouri. 2001. Genetic Properties of Drought Resistance Indices. *J. Agric. Sci. Technol. Vol. 3: 43 – 49.*

Serraj, R., C.T. Hash, H.K. Buhariwalla, P.M. Guar, S.N. Nigam, L. Krishnamurthy, J. Kashiwagi, K.K. Sharma and J.H. Crouch. 2004. Crop Improvement for Drought Resistance – A Holistic Approach. ICRISAT

Sichingabula, H.M. 1995. 'Some Historical Perspectives on Drought in Zambia, 1886 – 1987, *Under review, Singapore Journal of Tropical Geography.*

Simango, V.A. and Das, J.C. 1977. Use of Annual Deciles for Assessing Drought in Zambia. Meteorological Notes Series A. No. 17, *Department of Meteorology, Lusaka* In: *Summary of Proceedings of the IUCN Drought Study Follow-up Workshop on the Environmental Impact of 1991 – 1992 Drought on Zambia*

Singh, B.B., Y. Mai-Kodomi and T. Terao. A simple screening method for drought tolerance in cowpea. Ind. J. Gen. 59 2 (1999) 211-220

Singh, B.D. 1983. Plant Breeding – Principles and Methods, Kalyani Publishers, Ludhiana, New Dehli, Noida (U.P.), Hyderabad, Chennai, Kolkata, Cuttack.

Swaminath, M.H. 1979. Study on the Geneti Diversity in the African Collection of Finger Millet (*Eleusine coracana* Gaertn.) and their Interaction with the Environment. [Abstract]. *Mysore Journal of Agricultural Sciences* (1979) **13** (2) 225 – 226 [En] Dep. Agric. Bot., Univ. Agric. Sci., Hebbal, Bangalore, India.

Vietmeyer, N.D. 1996. Lost Crops of Africa. Vol. I: Grains. Board on Science and Technology for International Development, National Research Council, National Academy Press, Washington, D.C.

Viswanath, S.R. 1977. Evaluation of ragi genotypes for relative drought tolerance based on physiological parameters and field performance. Thesis, University of Agricultural Sciences, Bangalore, India. (1977) [En] *From Mysore Journal of Agricultural Sciences.*

Zaldivar, M.E., O.J. Rocha, G. Aguilar, L. Castro, E. Castro and R. Barrantes. 2002. Genetic Variation of Cassava (*Manihot esculentus* Crantz) Cultivated by Chibchan Amerindians of Costa Rica. *Economic Botany* **58** (2) pp. 204 – 213. 2004

# Annexes

Annexe I: Experimental Materials

| Serial # | Acc. # | SPGRC # | Collector's # | District | New Latitude | New Longitude | Province | Source | Collection Date | Village | Collector |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | N 33 | | | | | | | | | | |
| 2. | ZM 66 | | | | | | | | | | |
| 3. | ZM 101 | | | | | | | | | | |
| 4. | ZM 102 | | | | | | | | | | |
| 5. | ZM 103 | | | | | | | | | | |
| 6. | ZM 106 | | | | | | | | | | |
| 7. | ZM 109 | | | | | | | | | | |
| 8. | ZM 110 | | | | | | | | | | |
| 9. | ZM 111 | | | | | | | | | | |
| 10. | ZM 112 | | | | | | | | | | |
| 11. | ZM 114 | | | | | | | | | | |
| 12. | ZM 115 | | | | | | | | | | |
| 13. | ZM 118 | | | | | | | | | | |
| 14. | ZM 119 | | | | | | | | | | |
| 15. | ZM 120 | | | | | | | | | | |
| 16. | ZM 121 | | | | | | | | | | |
| 17. | ZM 122 | | | | | | | | | | |
| 18. | ZM 123 | | | | | | | | | | |
| 19. | ZM 124 | | | | | | | | | | |
| 20. | ZM 125 | | | | | | | | | | |
| 21. | ZM 126 | | | | | | | | | | |
| 22. | ZM 127 | | | | | | | | | | |
| 23. | ZM 128 | | | | | | | | | | |
| 24. | ZM 129 | | | | | | | | | | |
| 25. | ZM 130 | | | | | | | | | | |
| 26. | ZM 131 | | | | | | | | | | |
| 27. | ZM 132 | | | | | | | | | | |
| 28. | ZM 133 | | | | | | | | | | |
| 29. | ZM 137 | | | | | | | | | | |
| 30. | ZM 140 | | | | | | | | | | |
| 31. | ZM 143 | | | | | | | | | | |
| 32. | ZM 144 | | | | | | | | | | |
| 33. | ZM 146 | | | | | | | | | | |

Annexe I: Experimental Materials, Cont'd

| Serial # | Acc. # | SPGRC # | Collector's # | District | New Latitude | New Longitude | Province | Source | Collection Date | Village | Collector |
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| 34. | ZM 147 | | | | | | | | | | |
| 35. | ZM 148 | | | | | | | | | | |
| 36. | ZM 149 | | | | | | | | | | |
| 37. | ZM 152 | | | | | | | | | | |
| 38. | ZM 153 | | | | | | | | | | |
| 39. | ZM 154 | | | | | | | | | | |
| 40. | ZM 155 | | | | | | | | | | |
| 41. | ZM 156 | | | | | | | | | | |
| 42. | ZM 157 | | | | | | | | | | |
| 43. | ZM 159 | | | | | | | | | | |
| 44. | ZM 162 | | | | | | | | | | |
| 45. | ZM 168 | | | | | | | | | | |
| 46. | ZM 173 | | | | | | | | | | |
| 47. | ZM 175 | | | | | | | | | | |
| 48. | ZM 186 | | | | | | | | | | |
| 49. | ZM 187 | | | | | | | | | | |
| 50. | ZM 190 | | | | | | | | | | |
| 51. | ZM 194 | | | | | | | | | | |
| 52. | ZM 195 | | | | | | | | | | |
| 53. | ZM 197 | | | | | | | | | | |
| 54. | ZM 198 | | | | | | | | | | |
| 55. | ZM 199 | | | | | | | | | | |
| 56. | ZM 200 | | | | | | | | | | |
| 57. | ZM 203 | | | | | | | | | | |
| 58. | ZM 208 | | | | | | | | | | |
| 59. | ZM 209 | | | | | | | | | | |
| 60. | ZM 211 | | | | | | | | | | |
| 61. | ZM 212 | | | | | | | | | | |
| 62. | ZM 214 | | | | | | | | | | |
| 63. | ZM 216 | | | | | | | | | | |
| 64. | ZM 218 | | | | | | | | | | |
| 65. | ZM 219 | | | | | | | | | | |
| 66. | ZM 220 | | | | | | | | | | |
| 67. | ZM 221 | | | | | | | | | | |
| 68. | ZM 222 | | | | | | | | | | |

Annexe I: Experimental Materials, Cont'd

| Serial # | Acc. # | SPGRC # | Collector's # | | District | New Latitude | New Longitude | Province | Source | Collection Date | Village | Collector |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 69. | ZM 223 | | | | | | | | | | | |
| 70. | ZM 224 | | | | | | | | | | | |
| 71. | ZM 225 | | | | | | | | | | | |
| 72. | ZM 226 | | | | | | | | | | | |
| 73. | ZM 227 | | | | | | | | | | | |
| 74. | ZM 229 | | | | | | | | | | | |
| 75. | ZM 235 | | | | | | | | | | | |
| 76. | ZM 238 | | | | | | | | | | | |
| 77. | ZM 240 | | | | | | | | | | | |
| 78. | ZM 241 | | | | | | | | | | | |
| 79. | ZM 245 | | | | | | | | | | | |
| 80. | ZM 246 | | | | | | | | | | | |
| 81. | ZM 252 | | | | | | | | | | | |
| 82. | ZM 254 | | | | | | | | | | | |
| 83. | ZM 257 | | | | | | | | | | | |
| 84. | ZM 263 | | | | | | | | | | | |
| 85. | ZM 266 | | | | | | | | | | | |
| 86. | ZM 269 | | | | | | | | | | | |
| 87. | ZM 138 | | | | | | | | | | | |
| 88. | 3834 | 1175 | NKD | 102 | Kawambwa | | | Luapula | Farm Store | 15/6/92 | Kambobe | G.M. Kaula |
| 89. | 3605 | 1138 | MKN | 2 | Kasama | | | Northern | Farm Store | 12/5/92 | Katanga | H. Kasalu |
| 90. | 3607 | | MKN | 4 | Kasama | | | Northern | Farm Store | 12/5/92 | Namutimba | G.M. Kaula |
| 91. | 3609 | | MKN | 6 | Kasama | | | Northern | Farm Store | 12/5/92 | Chikobwe | H. Kasalu |
| 92. | 3614 | | MKN | 9 | Kasama | | | Northern | Farmland | 13/5/92 | Mungumi | H. Kasalu |
| 93. | 3650 | 1139 | MKN | 48 | Mbala | | | Northern | Farmland | 19/5/92 | Vyamba | J.M. Wanyancha |
| 94. | 3651 | | MKN | 49 | Mbala | | | Northern | Farmland | 19/5/93 | Chaulu | H. Kasalu |
| 95. | 3652 | | MKN | 50 | Mbala | | | Northern | Farmland | 19/5/92 | Chaulu | G.M. Kaula |
| 96. | 3653 | | MKN | 51 | Mbala | | | Northern | Farm Store | 19/5/92 | Chitimbwa | H. Kasalu |
| 97. | 3655 | | MKN | 53 | Chinsali | | | Northern | Farmland | 22/5/92 | Kambwili | H. Kasalu |
| 98. | 3657 | 1140 | MKN | 55 | Chinsali | | | Northern | Farm Store | 22/5/92 | Kalela | H. Kasalu |
| 99. | 3658 | 130 | MKN | 56 | Chinsali | | | Northern | Farm Store | 22/5/92 | Kalela | H. Kasalu |
| 100 | 3661 | | MKN | 59 | Chinsali | | | Northern | Farm Store | 22/5/92 | Kaso | H. Kasalu |
| 101 | 3684 | | MKN | 81 | Isoka | | | Northern | Farm Store | 23/5/92 | Mwenelema | H. Kasalu |
| 102 | 3685 | | MKN | 82 | Isoka | | | Northern | Farm Store | 23/5/92 | Mwenelema | H. Kasalu |
| 103 | 3686 | 1142 | MKN | 83 | Isoka | | | Northern | Farm Store | 23/5/92 | Mwenelema | H. Kasalu |

Annexe I: Experimental Materials, Cont'd

| Serial # | Acc. # | SPGRC # | Collector's # | | District | New Latitude | New Longitude | Province | Source | Collection Date | Village | Collector |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 104. | 3696 | | | | | | | | | | | |
| 105. | 3702 | 1144 | MKN | 100 | Chinsali | | | Northern | Farm Store | 24/5/92 | Nkole Mfumu | H. Kasalu |
| 106. | 3703 | 1145 | MKN | 101 | Chinsali | | | Northern | Farm Store | 24/5/92 | Nkula | H. Kasalu |
| 107. | 3706 | | MKN | 104 | Chinsali | | | Northern | Farm Store | 25/5/92 | Chamba | H. Kasalu |
| 108. | 3710 | | MKN | 108 | Chinsali | | | Northern | Farm Store | 25/5/92 | Chitundu | H. Kasalu |
| 109. | 3715 | 1146 | MKN | 113 | Chinsali | | | Northern | Farm Store | 25/5/92 | Katuba | H. Kasalu |
| 110. | 3716 | 1147 | MKN | 114 | Chinsali | | | Northern | Farmland | 25/5/92 | Mabuluki | H. Kasalu |
| 111. | 3717 | 1148 | MKN | 116 | Chinsali | | | Northern | Farm Store | 25/5/92 | Mwenge | H. Kasalu |
| 112. | 3718 | 1149 | MKN | 118 | Chinsali | | | Northern | Farm Store | 25/5/92 | Mwisa | H. Kasalu |
| 113. | 3720 | | MKN | 120 | Chinsali | | | Northern | Farm Store | 25/5/92 | Chibesa Kunda | H. Kasalu |
| 114. | 3735 | 1151 | NKD | 3 | Mwense | | | Luapula | Farm Store | 10/6/92 | Katuta Agric | G.M. Kaula |
| 115. | 3736 | | NKD | 4 | Mwense | | | Luapula | Farm Store | 10/6/92 | Katuta Agric | G.M. Kaula |
| 116. | 3739 | 1153 | NKD | 7 | Mwense | | | Luapula | Farm Store | 10/6/92 | Kabunda | G.M. Kaula |
| 117. | 3741 | | NKD | 9 | Mwense | | | Luapula | Farm Store | 10/6/92 | Katuma | G.M. Kaula |
| 118. | 3753 | 1153 | NKD | 21 | Mwense | | | Luapula | Com. Market | 11/6/92 | Mwense | G.M. Kaula |
| 119. | 3765 | | | | | | | | | | | |
| 120. | 3771 | 1156 | NKD | 39 | Nchelenge | | | Luapula | Farmland | 12/6/92 | Mumpundu | G.M. Kaula |
| 121. | 3775 | | | | | | | | | | | |
| 122. | 3783 | 1158 | NKD | 51 | Nchelenge | -9.05 | 29.05 | Luapula | Farm Store | 12/6/92 | Kanchinkwe | G.M. Kaula |
| 123. | 3784 | | | | | | | | | | | |
| 124. | 3786 | 1186 | NKD | 54 | Nchelenge | | | Luapula | Farm Store | 12/6/92 | Mkuntu | G.M. Kaula |
| 125. | 3790 | | NKD | 58 | Nchelenge | | | Luapula | Farm Store | 13/6/92 | Kubengeshima | G.M. Kaula |
| 126. | 3801 | | NKD | 69 | Kawambwa | | | Luapula | Farm Store | 14/6/92 | Kalonga | G.M. Kaula |
| 127. | 3803 | 1162 | NKD | 71 | Kawambwa | | | Luapula | Farm Store | 14/6/92 | Chinombwe | G.M. Kaula |
| 128. | 3806 | 1163 | NKD | 74 | Kawambwa | | | Luapula | Farmland | 14/6/92 | Kaoma | G.M. Kaula |
| 129. | 3809 | 1230 | NKD | 77 | Kawambwa | | | Luapula | Farm Store | 14/6/92 | Chitimbwa | G.M. Kaula |
| 130. | 3811 | 1164 | NKD | 79 | Kawambwa | | | Luapula | Farm Store | 14/6/92 | Mweo | G.M. Kaula |
| 131. | 3813 | 1165 | NKD | 81 | Kawambwa | | | Luapula | Farm Store | 14/6/92 | Mayoyo | G.M. Kaula |
| 132. | 3816 | 1166 | NKD | 84 | Kawambwa | | | Luapula | Farm Store | 14/6/92 | Mushota | G.M. Kaula |
| 133. | 3817 | 1167 | NKD | 85 | Kawambwa | | | Luapula | Farm Store | 14/6/92 | LenGYe | G.M. Kaula |
| 134. | 3819 | 1168 | NKD | 87 | Kawambwa | | | Luapula | Farm Store | 14/6/92 | Lumande | G.M. Kaula |
| 135. | 3824 | 1170 | NKD | 92 | Kawambwa | | | Luapula | Farm Store | 15/6/92 | Kantondi | G.M. Kaula |
| 136. | 3825 | 1171 | NKD | 93 | Kawambwa | | | Luapula | Farm Store | 15/6/92 | Shinode | G.M. Kaula |
| 137. | 3826 | 1172 | NKD | 94 | Kawambwa | | | Luapula | Farm Store | 15/6/92 | Tololo | G.M. Kaula |
| 138. | 3827 | | NKD | 95 | Kawambwa | | | Luapula | Farm Store | 15/6/92 | Muchulila | G.M. Kaula |

**Annexe I: Experimental Materials, Cont'd**

| Serial # | Acc. # | SPGRC # | Collector's # | | District | New Latitude | New Longitude | Province | Source | Collection Date | Village | Collector |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **139.** | **3828** | 1175 | NKD | 102 | Kawambwa | | | Luapula | Farm Store | 15/6/92 | Kambobe | G.M. Kaula |
| **140.** | **3904** | 1200 | NKK | 11 | Chama | | | Eastern | Farm Store | 10/7/92 | Sanka | G.M. Kaula |
| **141.** | **3906** | 1201 | NKK | 13 | Chama | | | Eastern | Farm Store | 10/7/92 | Mumaka | G.M. Kaula |
| **142.** | **3907** | 1202 | NKK | 14 | Chama | | | Eastern | Farm Store | 10/7/92 | Chibilima | G.M. Kaula |
| **143.** | **3911** | 1203 | NKK | 18 | Chama | | | Eastern | Farm Store | 10/7/92 | Chazaso Farm | G.M. Kaula |
| **144.** | **3912** | 1204 | NKK | 19 | Chama | | | Eastern | Farm Store | 10/7/92 | Mutekete | G.M. Kaula |
| **145.** | **3914** | 1205 | NKK | 21 | Chama | | | Eastern | Farm Store | 10/7/92 | Chibavu | G.M. Kaula |
| **146.** | **3917** | 1206 | NKK | 24 | Chama | | | Eastern | Farm Store | 11/7/92 | Ngoli | G.M. Kaula |
| **147.** | **3918** | 1207 | NKK | 25 | Chama | | | Eastern | Farm Store | 11/7/92 | GYalawala | G.M. Kaula |
| **148.** | **3920** | 1209 | NKK | 27 | Chama | | | Eastern | Farm Store | 11/7/92 | Malaonga | G.M. Kaula |
| **149.** | **3922** | 1210 | NKK | 29 | Chama | | | Eastern | Farm Store | 11/7/92 | MunGYalala | G.M. Kaula |
| **150.** | **3925** | | | | | | | | | | | |
| **151.** | **3930** | 1213 | NKK | 37 | Chama | | | Eastern | Farm Store | 11/7/92 | Muzuhula | G.M. Kaula |
| **152.** | **3932** | 1214 | NKK | 39 | Chama | | | Eastern | Farm Store | 11/7/92 | Chibala | G.M. Kaula |
| **153.** | **3934** | 1215 | NKK | 41 | Chama | | | Eastern | Farm Store | 11/7/92 | Kapichila | G.M. Kaula |
| **154.** | **3937** | 1216 | NKK | 44 | Chama | | | Eastern | Farm Store | 12/7/92 | Hunger | G.M. Kaula |
| **155.** | **3939** | 1217 | NKK | 46 | Chama | | | Eastern | Farm Store | 12/7/92 | Buli | G.M. Kaula |
| **156.** | **3943** | 1218 | NKK | 50 | Chama | | | Eastern | Farm Store | 12/7/92 | Kalouya | G.M. Kaula |
| **157.** | **3946** | 1220 | NKK | 54 | Lundazi | | | Eastern | Farm Store | 12/7/92 | Ndafwakale | G.M. Kaula |
| **158.** | **3948** | | NKK | 56 | Lundazi | | | Eastern | Farm Store | 13/7/92 | Mulongoti | G.M. Kaula |
| **159.** | **3955** | 1221 | NKK | 63 | Chama | | | Eastern | Farm Store | 13/7/92 | Zamalimba | G.M. Kaula |
| **160.** | **3958** | 1222 | NKK | 66 | Chama | | | Eastern | Farm Store | 13/7/92 | Chifunda | G.M. Kaula |
| **161.** | **3962** | 1224 | NKK | 70 | Chama | | | Eastern | Farm Store | 14/7/92 | Vunda | G.M. Kaula |
| **162.** | **3965** | 1225 | NKK | 73 | Lundazi | | | Eastern | Farm Store | 14/7/92 | Kampata | G.M. Kaula |
| **163.** | **3969** | 1231 | NKK | 77 | Lundazi | | | Eastern | Farm Store | 14/7/92 | Chamwezo | G.M. Kaula |
| **164.** | **3972** | 1226 | NKK | 80 | Lundazi | | | Eastern | Farm Store | 14/7/92 | Zokwe | G.M. Kaula |
| **165.** | **3977** | 1228 | NKK | 85 | Lundazi | | | Eastern | Farm Store | 14/7/92 | Ngalande | G.M. Kaula |
| **166.** | **4639** | | MM | 1141 | Mbala | | | Northern | Farm Store | 11/7/92 | Senga-Hill | C. Mwamb |
| **167.** | **4732** | | MM | 1104 | Nakonde | | | Northern | Farm Store | 09/7/92 | Ilola | C. Mwamb |
| **168.** | **6599** | | | | | | | | | | | |
| **169.** | **6600** | | | | | | | | | | | |
| **170.** | **6607** | | | | | | | | | | | |
| **171.** | **6637** | | | | | | | | | | | |
| **172.** | **6714** | | S | 54 | Masaiti | | | Copperbelt | Farm Store | 21/08/2002 | Katuba Agr.. | |
| **173.** | **5061** | | NK | 128 | Mkushi | | | Central | Farm Store | 08/10/96 | Makolongo | W. Kamus |

Annexe I: Experimental Materials, Cont'd

| Serial # | Acc. # | SPGRC # | Collector's # | | District | New Latitude | New Longitude | Province | Source | Collection Date | Village | Collector |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 174. | 7024 | | | | | | | | | | | |
| 175. | 40122 | | | | | | | | | | | |
| 176. | 1459 | | | | | | | | | | | |
| 177. | 3919 | 1208 | NKK | 26 | Chama | | | Eastern | Farm Store | 11/7/92 | Malaonga | G.M. Kaula |
| 178. | 5051 | | NK | 80 | Serenje | | | Central | Farm Store | 06/10/96 | Mkandu | W. Kamusaki |
| 179. | 5052 | | NK | 42 | Serenje | | | Central | Farm Store | 05/10/96 | Mwamba | W. Kamusaki |
| 180. | 3834 | | | | | | | | | | | |
| 181. | 3839 | 1177 | NKD | 107 | Mansa | | | Luapula | Farm Store | 17/6/92 | Kalinda | G.M. Kaula |
| 182. | 3841 | 1179 | NKD | 109 | Mansa | | | Luapula | Farm Store | 17/6/92 | James | G.M. Kaula |
| 183. | 3842 | 1180 | NKD | 110 | Mansa | | | Luapula | Farm Store | 17/6/92 | Kasangula | G.M. Kaula |
| 184. | 3844 | 1181 | NKD | 112 | Mansa | | | Luapula | Farm Store | 17/6/92 | Chetente | G.M. Kaula |
| 185. | 3847 | 1183 | NKD | 115 | Mansa | | | Luapula | Farm Store | 17/6/92 | Kasuba | G.M. Kaula |
| 186. | 3849 | | NKD | 117 | Samfya | | | Luapula | Farm Store | 18/6/92 | Kasuba | G.M. Kaula |
| 187. | 3853 | 1184 | NKD | 121 | Samfya | | | Luapula | Farm Store | 18/6/92 | Chalolwa | G.M. Kaula |
| 188. | 3854 | 1185 | NKD | 122 | Samfya | | | Luapula | Farm Store | 18/6/92 | Chalolwa | G.M. Kaula |
| 189. | 3860 | 1187 | NKD | 128 | Samfya | | | Luapula | Farm Store | 18/6/92 | Mussonte | G.M. Kaula |
| 190. | 3861 | 1188 | NKD | 129 | Samfya | | | Luapula | Farm Store | 18/6/92 | Musonte | G.M. Kaula |
| 191. | 3863 | 1189 | NKD | 131 | Samfya | | | Luapula | Farm Store | 18/6/92 | Moba | G.M. Kaula |
| 192. | 3864 | 1190 | NKD | 132 | Samfya | | | Luapula | Farm Store | 18/6/92 | Miponda | G.M. Kaula |
| 193. | 3866 | 1191 | NKD | 134 | Samfya | | | Luapula | Farm Store | 18/6/92 | Kolola | G.M. Kaula |
| 194. | 3875 | 1192 | NKD | 143 | Samfya | | | Luapula | Farm Store | 19/6/92 | Luwonde | G.M. Kaula |
| 195. | 3879 | 1193 | NKD | 147 | Samfya | | | Luapula | Farm Store | 19/6/92 | Njipi | G.M. Kaula |
| 196. | 3880 | | NKD | 148 | Samfya | | | Luapula | Farm Store | 19/6/92 | Chibalo | G.M. Kaula |
| 197. | 3884 | 1194 | NKD | 152 | Samfya | | | Luapula | Farm Store | 19/6/92 | Chimembe | G.M. Kaula |
| 198. | 3885 | 1195 | NKD | 153 | Samfya | | | Luapula | Farm Store | 20/6/92 | Mondo | G.M. Kaula |
| 199. | 3891 | 1197 | NKD | 159 | Mansa | | | Luapula | Farm Store | 20/6/92 | Buyanuma | G.M. Kaula |
| 200. | 3895 | | | | | | | | | | | |
| 201. | 3897 | 1198 | NKK | 4 | Chama | | | Eastern | Farm Store | 10/7/92 | Mutanila | G.M. Kaula |
| 202. | 3899 | 1199 | NKK | 6 | Chama | | | Eastern | Farm Store | 10/7/92 | Mbangadwe | G.M. Kaula |

Acc. = Accession, # = Number

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance**

| Plot # | E | B | Acc. #/ | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Check # | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| **101** | **1** | **1** | **1** | 68.8 | 3.7 | 120 | 91.4 | 5.6 | 12.2 | 1.7 | 0.009 | 5 | 100 | 2 | | 0.53 | 1.691 | 5.073 |
| **102** | **1** | **1** | **33** | 77.4 | 6.6 | 82 | 39.0 | 5.4 | 8.5 | | | 2 | 100 | 1 | | #DIV/0! | 0.000 | 0 |
| **103** | **1** | **1** | **66** | 61.6 | 5.0 | 139 | 46.8 | 6.9 | 9.6 | 1.8 | 0.009 | 6 | 0 | 3 | | 0.50 | 1.791 | 5.373 |
| **104** | **1** | **1** | **101** | 77.8 | 6.0 | 141 | 78.6 | 6.2 | 12.0 | 2.1 | 0.006 | 6 | 100 | 3 | | 0.29 | 2.094 | 6.282 |
| **105** | **1** | **1** | **102** | 79.6 | 8.9 | 145 | 64.3 | 5.8 | 10.4 | | | 6 | 100 | 3 | | #DIV/0! | 0.000 | 0 |
| **106** | **1** | **1** | **103** | 57.2 | 6.3 | 98 | 38.8 | 7.5 | 6.3 | 0.5 | 0.001 | 2 | 80 | 1 | | 0.20 | 0.499 | 1.497 |
| **107** | **1** | **1** | **106** | 52.4 | 10.3 | 129 | 37.7 | 6.4 | 10.9 | 1.6 | 0.006 | 6 | 0 | 4 | | 0.38 | 1.594 | 4.782 |
| **108** | **1** | **1** | **109** | 62.4 | 5.0 | 140 | 55.4 | 7.7 | 8.9 | 1.4 | 0.001 | 6 | 100 | 4 | | 0.07 | 1.399 | 4.197 |
| **109** | **1** | **1** | **110** | 58.8 | 7.6 | 133 | 39.0 | 6.6 | 10.2 | 1.0 | 0.004 | 4 | 80 | 3 | | 0.40 | 0.996 | 2.988 |
| **110** | **1** | **1** | **111** | 64.8 | 8.8 | 132 | 41.1 | 6.8 | 12.9 | 1.5 | | 6 | 0 | 4 | | 0.00 | 1.500 | 4.5 |
| **111** | **1** | **1** | **112** | 68 | 6.6 | 131 | 52.8 | 6.0 | 12.0 | 4.0 | | 6 | 0 | 5 | | 0.00 | 4.000 | 12 |
| **112** | **1** | **1** | **114** | 63.8 | 4.3 | 140 | 64.7 | 9.3 | 9.8 | 2.3 | 0.019 | 2 | 90 | 2 | | 0.83 | 2.281 | 6.843 |
| **113** | **1** | **1** | **115** | 76 | 4.5 | 137 | 63.4 | 8.0 | 11.1 | 3.8 | 0.009 | 6 | 100 | 4 | | 0.24 | 3.791 | 11.373 |
| **114** | **1** | **1** | **118** | 56.6 | 4.3 | 135 | 44.4 | 5.4 | 12.9 | | | 5 | 0 | 3 | | #DIV/0! | 0.000 | 0 |
| **115** | **1** | **1** | **3** | 69 | 5.7 | 118 | 60.4 | 6.2 | 6.5 | 1.8 | 0.007 | 3 | 60 | 2 | | 0.39 | 1.793 | 5.379 |
| **116** | **1** | **1** | **119** | 64 | 6.9 | 132 | 52.3 | 7.0 | 13.8 | 1.8 | 0.008 | 4 | 100 | 3 | | 0.44 | 1.792 | 5.376 |
| **117** | **1** | **1** | **120** | 59 | 6.6 | 130 | 43.7 | 7.7 | 10.4 | 2.5 | | 5 | 100 | 3 | | 0.00 | 2.500 | 7.5 |
| **118** | **1** | **1** | **121** | 60 | 5.9 | 118 | 61.7 | 5.9 | 9.1 | 1.4 | 0.002 | 5 | 90 | 3 | | 0.14 | 1.398 | 4.194 |
| **119** | **1** | **1** | **122** | 78.4 | 5.1 | 126 | 55.5 | 8.8 | 10.9 | 3.0 | 0.015 | 5 | 80 | 3 | | 0.50 | 2.985 | 8.955 |
| **120** | **1** | **1** | **123** | 84 | 5.3 | 150 | 66.3 | 8.3 | 8.7 | 2.4 | 0.007 | 5 | 100 | 4 | | 0.29 | 2.393 | 7.179 |
| **121** | **1** | **1** | **124** | 76.2 | 6.3 | 170 | 55.2 | 9.2 | 11.1 | 2.6 | 0.004 | 6 | 80 | 4 | | 0.15 | 2.596 | 7.788 |
| **122** | **1** | **1** | **125** | 85.6 | 5.6 | 133 | 48.9 | 8.3 | 8.4 | 1.3 | 0.005 | 5 | 100 | 4 | | 0.38 | 1.295 | 3.885 |
| **123** | **1** | **1** | **126** | 68.2 | 5.4 | 133 | 60.8 | 8.1 | 10.0 | | | 5 | 100 | 4 | | #DIV/0! | 0.000 | 0 |
| **124** | **1** | **1** | **127** | 73.6 | 6.5 | 138 | 61.4 | 7.9 | 9.6 | 2.6 | 0.013 | 6 | 30 | 4 | | 0.50 | 2.587 | 7.761 |
| **125** | **1** | **1** | **128** | 84 | 5.1 | 129 | 53.7 | 6.9 | 9.5 | 1.6 | 0.009 | 6 | 100 | 4 | | 0.56 | 1.591 | 4.773 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Check # | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| **126** | **1** | **1** | **129** | 76.8 | 6.4 | 120 | 59.4 | 9.1 | 10.2 | 2.9 | 0.037 | 5 | 60 | 4 | | 1.28 | 2.863 | 8.589 |
| **127** | **1** | **1** | **130** | 80.4 | 5.3 | 121 | 43.0 | 7.0 | 8.9 | 3.1 | | 6 | 80 | 4 | | 0.00 | 3.100 | 9.3 |
| **128** | **1** | **1** | **131** | 88.2 | 5.3 | 123 | 60.1 | 6.6 | 11.3 | 3.7 | | 5 | 100 | 4 | | 0.00 | 3.700 | 11.1 |
| **129** | **1** | **1** | **132** | 70.4 | 6.2 | 128 | 53.5 | 6.2 | 12.0 | | 0.009 | 6 | 50 | 4 | | #DIV/0! | -0.009 | -0.027 |
| **130** | **1** | **1** | **165** | 63 | 5.1 | 125 | 65.2 | 6.2 | 11.3 | | | 3 | 80 | 2 | | #DIV/0! | 0.000 | 0 |
| **131** | **1** | **1** | **133** | 72.4 | 5.3 | 130 | 52.9 | 8.1 | 11.6 | 2.7 | 0.022 | 3 | 100 | 2 | | 0.81 | 2.678 | 8.034 |
| **132** | **1** | **1** | **137** | 74.2 | 6.0 | 120 | 51.8 | 6.6 | 13.1 | 2.2 | 0.007 | 3 | 100 | 3 | | 0.32 | 2.193 | 6.579 |
| **133** | **1** | **1** | **140** | 91.4 | 5.6 | 120 | 49.1 | 7.3 | 12.2 | 2.0 | | 3 | 0 | 3 | | 0.00 | 2.000 | 6 |
| **134** | **1** | **1** | **143** | 106.6 | 6.6 | 138 | 48.0 | 6.3 | 11.8 | | | 4 | 0 | 4 | | #DIV/0! | 0.000 | 0 |
| **135** | **1** | **1** | **144** | 88 | 7.8 | 131 | 52.0 | 7.4 | 10.9 | | | 5 | 100 | | | #DIV/0! | 0.000 | 0 |
| **136** | **1** | **1** | **146** | 101.6 | 6.9 | 126 | 67.6 | 8.0 | 11.1 | | | 6 | 100 | | | #DIV/0! | 0.000 | 0 |
| **137** | **1** | **1** | **147** | 90 | 6.3 | 125 | 47.2 | 6.8 | 11.3 | 3.7 | | 5 | 0 | | | 0.00 | 3.700 | 11.1 |
| **138** | **1** | **1** | **148** | 84.8 | 8.1 | 122 | 71.8 | 7.2 | 10.4 | 4.2 | 0.011 | 6 | 70 | | | 0.26 | 4.189 | 12.567 |
| **139** | **1** | **1** | **149** | 74.2 | 6.4 | 132 | 51.7 | 7.9 | 11.1 | | | 0 | 0 | | | #DIV/0! | 0.000 | 0 |
| **140** | **1** | **1** | **152** | 66.8 | 6.7 | 127 | 45.6 | 7.7 | 9.3 | 1.4 | 0.012 | 5 | 100 | | | 0.86 | 1.388 | 4.164 |
| **141** | **1** | **1** | **153** | 0 | 5.5 | 125 | #DIV/0! | #DIV/0! | 0.0 | 4.1 | | 6 | 100 | | | 0.00 | 4.100 | 12.3 |
| **142** | **1** | **1** | **154** | 82.6 | 5.3 | 151 | 57.0 | 8.8 | 11.1 | | | 5 | 60 | | | #DIV/0! | 0.000 | 0 |
| **143** | **1** | **1** | **155** | 42.2 | 7.4 | 101 | 21.7 | 7.3 | 3.8 | 1.4 | | 5 | 100 | 4 | | 0.00 | 1.400 | 4.2 |
| **144** | **1** | **1** | **156** | 85 | 6.7 | 137 | 55.0 | 7.9 | 9.3 | 2.4 | 0.013 | 6 | 100 | 4 | | 0.54 | 2.387 | 7.161 |
| **145** | **1** | **1** | **157** | 0 | 6.8 | 141 | 46.4 | 7.1 | 11.5 | 3.7 | 0.021 | 3 | 60 | 3 | | 0.57 | 3.679 | 11.037 |
| **146** | **1** | **1** | **4** | 58 | 4.8 | 118 | 58.2 | 6.3 | 12.9 | | | 2 | 100 | 2 | | #DIV/0! | 0.000 | 0 |
| **147** | **1** | **1** | **159** | 69 | 5.7 | 142 | 57.4 | 7.8 | 10.4 | 2.3 | 0.006 | 2 | 100 | 3 | | 0.26 | 2.294 | 6.882 |
| **148** | **1** | **1** | **162** | 0 | 5.0 | 133 | #DIV/0! | #DIV/0! | 0.0 | | | 1 | 50 | 3 | | #DIV/0! | 0.000 | 0 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ | Traits | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Check # | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| 149 | 1 | 1 | 168 | 64.8 | 6.1 | 129 | 53.3 | 7.7 | 12.0 | 2.6 | 0.006 | 2 | 80 | 4 | | 0.23 | 2.594 | 7.782 |
| 150 | 1 | 1 | 173 | 68.8 | 5.5 | 132 | 73.2 | 8.0 | 10.9 | 2.6 | 0.01 | 2 | 100 | 4 | | 0.38 | 2.590 | 7.77 |
| 151 | 1 | 1 | 175 | 71.6 | 5.9 | 130 | 53.6 | 8.9 | 11.5 | | | 2 | 100 | 3 | | #DIV/0! | 0.000 | 0 |
| 152 | 1 | 1 | 3834 | 68.8 | 6.1 | 146 | 55.6 | 9.0 | 12.0 | | 0.021 | 2 | 0 | 3 | | #DIV/0! | -0.021 | -0.063 |
| 153 | 1 | 1 | 186 | 64.6 | 4.4 | 151 | 52.7 | 7.1 | 14.2 | | 0.008 | 2 | 90 | 3 | | #DIV/0! | -0.008 | -0.024 |
| 154 | 1 | 1 | 187 | 79 | 7.2 | 123 | 54.4 | 7.9 | 11.8 | | 0.003 | 2 | 80 | 2 | | #DIV/0! | -0.003 | -0.009 |
| 155 | 1 | 2 | 190 | 82.4 | 4.6 | 121 | 51.7 | 8.0 | 11.8 | | 0.019 | 2 | 100 | 2 | | #DIV/0! | -0.019 | -0.057 |
| 156 | 1 | 2 | 194 | 76.6 | 7.0 | 134 | 60.3 | 7.4 | 12.4 | | 0.003 | 6 | 70 | 3 | | #DIV/0! | -0.003 | -0.009 |
| 157 | 1 | 2 | 195 | 96.4 | 6.6 | 113 | 54.9 | 7.0 | 10.5 | | 0.008 | 5 | 80 | 2 | | #DIV/0! | -0.008 | -0.024 |
| 158 | 1 | 2 | 197 | 83.2 | 7.4 | 120 | 60.4 | 5.9 | 11.6 | | | 3 | 100 | 1 | | #DIV/0! | 0.000 | 0 |
| 159 | 1 | 2 | 198 | 87.4 | 5.4 | 120 | 72.1 | 6.5 | 14.0 | | | 3 | 100 | 2 | | #DIV/0! | 0.000 | 0 |
| 160 | 1 | 2 | 199 | 85.6 | 6.9 | 118 | 55.2 | 8.1 | 9.1 | | | 3 | 50 | 1 | | #DIV/0! | 0.000 | 0 |
| 161 | 1 | 2 | 200 | 78.8 | 6.6 | 118 | 46.9 | 8.5 | 10.7 | 1.7 | 0.008 | 2 | 90 | 1 | | 0.47 | 1.692 | 5.076 |
| 162 | 1 | 2 | 203 | 61.6 | 6.7 | 138 | 47.3 | 6.8 | 10.7 | | 0.009 | 4 | 100 | 3 | | #DIV/0! | -0.009 | -0.027 |
| 163 | 1 | 2 | 208 | 75.2 | 8.8 | 127 | 53.7 | 7.4 | 9.6 | 2.0 | | 2 | 60 | 2 | | 0.00 | 2.000 | 6 |
| 164 | 1 | 2 | 209 | 65.6 | 10.4 | 122 | 44.9 | 7.0 | 11.1 | 0.8 | 0.017 | 2 | 100 | 4 | 2.0 | 2.13 | 0.783 | 2.349 |
| 165 | 1 | 2 | 211 | | 7.1 | 131 | #DIV/0! | #DIV/0! | 0.0 | 2.7 | 0.011 | 5 | 100 | 4 | 3.0 | 0.41 | 2.689 | 8.067 |
| 166 | 1 | 2 | 212 | | 6.7 | 120 | 70.0 | 6.9 | 11.8 | 1.4 | 0.028 | 3 | 100 | 2 | 1.0 | 2.00 | 1.372 | 4.116 |
| 168 | 1 | 2 | 4 | | 5.8 | 118 | 60.8 | 6.6 | 11.5 | 2.0 | 0.003 | 5 | 100 | 1 | 1.0 | 0.15 | 1.997 | 5.991 |
| 169 | 1 | 2 | 214 | | 4.5 | 136 | 66.3 | 7.3 | 11.8 | 2.2 | 0.002 | 5 | 100 | 3 | 1.0 | 0.09 | 2.198 | 6.594 |
| 170 | 1 | 2 | 216 | | 7.6 | 135 | 68.7 | 6.8 | 10.9 | 2.4 | 0.012 | 6 | 0 | 4 | 2.0 | 0.50 | 2.388 | 7.164 |
| 171 | 1 | 2 | 218 | | 6.3 | 133 | 66.7 | 7.8 | 10.5 | 2.5 | 0.003 | 6 | 70 | 4 | 2.0 | 0.12 | 2.497 | 7.491 |
| 172 | 1 | 2 | 219 | | 7.2 | 121 | 65.6 | 7.4 | 10.4 | 2.3 | 0.004 | 5 | 70 | 3 | 1.0 | 0.17 | 2.296 | 6.888 |
| 173 | 1 | 2 | 220 | | 5.6 | 127 | 54.3 | 6.5 | 10.2 | 2.1 | 0.002 | 3 | 70 | 3 | 2.0 | 0.10 | 2.098 | 6.294 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ Check # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| 174 | 1 | 2 | 221 | | 4.0 | 132 | 62.1 | 7.2 | 9.6 | 1.4 | 0.016 | 6 | 80 | 4 | 1.5 | 1.14 | 1.384 | 4.152 |
| 175 | 1 | 2 | 222 | | 8.1 | 121 | 64.4 | 7.0 | 13.1 | 2.4 | 0.02 | 5 | 100 | 3 | 2.0 | 0.83 | 2.380 | 7.14 |
| 176 | 1 | 2 | 223 | | 6.3 | 121 | 61.5 | 8.1 | 10.2 | 1.6 | 0.001 | 1 | 60 | 2 | 1.0 | 0.06 | 1.599 | 4.797 |
| 177 | 1 | 2 | 224 | | 7.5 | 128 | 53.4 | 5.7 | 11.3 | 1.8 | 0.007 | 1 | 80 | 1 | 2.0 | 0.39 | 1.793 | 5.379 |
| 178 | 1 | 2 | 225 | | 7.2 | 150 | 51.5 | 7.1 | 12.4 | 2.8 | 0.011 | 7 | 100 | 5 | 1.0 | 0.39 | 2.789 | 8.367 |
| 179 | 1 | 2 | 226 | | 7.2 | 122 | 60.3 | 6.7 | 12.5 | 2.0 | 0.004 | 1 | 100 | 2 | 2.0 | 0.20 | 1.996 | 5.988 |
| 180 | 1 | 2 | 227 | | 7.3 | 131 | 44.6 | 6.3 | 12.7 | 0.4 | 0.015 | 1 | 100 | 1 | 1.0 | 3.75 | 0.385 | 1.155 |
| 181 | 1 | 2 | 229 | | 5.9 | 129 | 48.9 | 8.7 | 8.7 | 2.0 | 0.026 | 6 | 100 | 4 | 3.0 | 1.30 | 1.974 | 5.922 |
| 182 | 1 | 2 | 235 | | 7.4 | 141 | 61.1 | 8.8 | 12.0 | 2.3 | 0.011 | 2 | 100 | 3 | 2.0 | 0.48 | 2.289 | 6.867 |
| 183 | 1 | 2 | 238 | | 6.4 | 139 | 59.4 | 6.8 | 12.2 | 3.2 | 0.006 | 3 | 100 | 4 | 2.0 | 0.19 | 3.194 | 9.582 |
| 184 | 1 | 2 | 240 | | 7.2 | 126 | 54.8 | 6.7 | 12.5 | 2.0 | 0.011 | 4 | 100 | 3 | 3.0 | 0.55 | 1.989 | 5.967 |
| 185 | 1 | 2 | 241 | | 5.0 | 122 | 62.6 | 8.7 | 12.9 | 2.9 | 0.01 | 5 | 0 | 4 | 3.0 | 0.34 | 2.890 | 8.67 |
| 186 | 1 | 2 | 245 | | 6.2 | 122 | 69.0 | 7.3 | 11.3 | 2.0 | 0.005 | 4 | 50 | 5 | 3.0 | 0.25 | 1.995 | 5.985 |
| 187 | 1 | 2 | 246 | | 7.3 | 118 | 58.6 | 7.1 | 12.2 | 1.9 | 0.007 | 5 | 90 | 3 | 2.0 | 0.37 | 1.893 | 5.679 |
| 188 | 1 | 2 | 252 | | 7.6 | 137 | 57.3 | 7.6 | 9.3 | 2.0 | 0.016 | 6 | 100 | 4 | 4.5 | 0.80 | 1.984 | 5.952 |
| 189 | 1 | 2 | 254 | | 8.5 | 130 | 53.3 | 6.5 | 10.4 | 1.9 | 0.02 | 5 | 90 | 3 | 1.0 | 1.05 | 1.880 | 5.64 |
| 190 | 1 | 2 | 257 | | 8.0 | 141 | 68.3 | 7.5 | 10.9 | 3.2 | 0.006 | 7 | 100 | 4 | 2.0 | 0.19 | 3.194 | 9.582 |
| 191 | 1 | 2 | 263 | | 6.4 | 142 | 65.7 | 6.2 | 11.8 | 2.5 | 0.013 | 6 | 80 | 4 | 2.0 | 0.52 | 2.487 | 7.461 |
| 192 | 1 | 2 | 266 | | 7.9 | 139 | 65.5 | 7.1 | 12.7 | 2.2 | 0.02 | 7 | 70 | 4 | 2.0 | 0.91 | 2.180 | 6.54 |
| 193 | 1 | 2 | 3 | | 7.6 | 137 | 81.6 | 6.9 | 13.6 | 2.4 | 0.027 | 3 | 60 | 2 | 0.5 | 1.13 | 2.373 | 7.119 |
| 194 | 1 | 2 | 269 | | 6.7 | 132 | 68.0 | 8.3 | 13.1 | 4.0 | 0.015 | 7 | 100 | 4 | 2.0 | 0.38 | 3.985 | 11.955 |
| 195 | 1 | 2 | 3605 | | #DIV/0! | 138 | 66.5 | 8.6 | 11.1 | 1.1 | 0.044 | 6 | 0 | 4 | 2.0 | 4.00 | 1.056 | 3.168 |
| 196 | 1 | 2 | 3607 | | #DIV/0! | 139 | 58.7 | 7.8 | 12.7 | 4.2 | 0.023 | 5 | 0 | 4 | | 0.55 | 4.177 | 12.531 |
| 197 | 1 | 2 | 3609 | | 8.3 | 142 | 75.8 | 7.7 | 11.5 | 4.3 | 0.046 | 4 | 0 | 4 | 4.0 | 1.07 | 4.254 | 12.762 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Check # | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| 198 | 1 | 2 | 3614 | | 4.5 | | 57.6 | 7.6 | 14.4 | 2.6 | 0.015 | 4 | 0 | 3 | 1.0 | 0.58 | 2.585 | 7.755 |
| 199 | 1 | 2 | 3650 | | 5.2 | 151 | 64.9 | 8.0 | 12.2 | 3.5 | 0.034 | 4 | 100 | 3 | 4.0 | 0.97 | 3.466 | 10.398 |
| 200 | 1 | 2 | 3651 | | 7.4 | 151 | 56.8 | 6.2 | 11.6 | 2.8 | 0.008 | 6 | 100 | 4 | 4.5 | 0.29 | 2.792 | 8.376 |
| 201 | 1 | 2 | 3652 | | 4.8 | 148 | 52.7 | 7.6 | 11.1 | 3.0 | 0.022 | 7 | 0 | 4 | 4.0 | 0.73 | 2.978 | 8.934 |
| 202 | 1 | 2 | 3653 | | 4.9 | 152 | 47.5 | 8.0 | 10.5 | 2.3 | 0.012 | 6 | 0 | 3 | 2.0 | 0.52 | 2.288 | 6.864 |
| 203 | 1 | 2 | 3655 | | 5.5 | 152 | 65.1 | 8.7 | 11.5 | 2.8 | 0.022 | 3 | 0 | 3 | 4.0 | 0.79 | 2.778 | 8.334 |
| 204 | 1 | 2 | 3657 | | 4.3 | 148 | 57.0 | 7.6 | 11.1 | 2.2 | 0.009 | 6 | 0 | 2 | 3.0 | 0.41 | 2.191 | 6.573 |
| 205 | 1 | 2 | 3658 | | 3.7 | 148 | 74.1 | 7.9 | 12.4 | 2.9 | 0.027 | 5 | 100 | 3 | 2.0 | 0.93 | 2.873 | 8.619 |
| 206 | 1 | 2 | 3661 | | 5.3 | 146 | 71.5 | 8.0 | 10.9 | 3.7 | 0.026 | 6 | 90 | 2 | 3.0 | 0.70 | 3.674 | 11.022 |
| 207 | 1 | 2 | 3684 | | 5.9 | 146 | 75.7 | 6.7 | 12.4 | 4.9 | 0.045 | 5 | 100 | 4 | 3.0 | 0.92 | 4.855 | 14.565 |
| 208 | 1 | 2 | 2 | | 4.7 | 144 | 95.0 | 7.6 | 12.5 | 3.1 | 0.02 | 7 | 80 | 3 | 3.0 | 0.65 | 3.080 | 9.24 |
| 209 | 1 | 3 | 3685 | | 4.2 | 144 | 56.1 | 7.5 | 11.8 | 2.4 | 0.006 | 5 | 100 | 3 | 2.0 | 0.25 | 2.394 | 7.182 |
| 210 | 1 | 3 | 3686 | | 9.4 | 150 | 61.4 | 7.3 | 10.4 | 3.3 | 0.021 | 5 | 0 | 3 | 3.0 | 0.64 | 3.279 | 9.837 |
| 211 | 1 | 3 | 3696 | | 5.7 | 152 | 48.7 | 7.4 | 11.5 | 2.2 | 0.009 | 4 | 0 | 4 | 2.0 | 0.41 | 2.191 | 6.573 |
| 212 | 1 | 3 | 3702 | | 7.3 | 146 | 69.3 | 7.3 | 11.5 | 2.5 | 0.017 | 5 | 100 | 3 | 2.0 | 0.68 | 2.483 | 7.449 |
| 213 | 1 | 3 | 3703 | | 7.2 | 146 | 51.5 | 7.7 | 10.5 | 2.0 | 0.008 | 3 | 100 | 2 | 2.0 | 0.40 | 1.992 | 5.976 |
| 214 | 1 | 3 | 3706 | | 6.8 | 152 | 41.9 | 7.7 | 12.4 | 2.5 | 0.011 | 6 | 80 | 3 | 3.0 | 0.44 | 2.489 | 7.467 |
| 215 | 1 | 3 | 3710 | | 6.0 | 152 | 54.4 | 7.6 | 10.0 | 2.3 | | 6 | 100 | 4 | 3.0 | 0.00 | 2.300 | 6.9 |
| 216 | 1 | 3 | 3715 | | 5.6 | 151 | 42.1 | 8.5 | 10.7 | 2.2 | 0.008 | 6 | 100 | 4 | 1.5 | 0.36 | 2.192 | 6.576 |
| 217 | 1 | 3 | 3716 | | 8.1 | 150 | 45.8 | 7.9 | 10.9 | 2.3 | 0.005 | 6 | 100 | 4 | 2.5 | 0.22 | 2.295 | 6.885 |
| 218 | 1 | 3 | 3717 | | 6.9 | 149 | 75.5 | 7.2 | 10.4 | 3.2 | 0.034 | 6 | 0 | | 3.5 | 1.06 | 3.166 | 9.498 |
| 219 | 1 | 3 | 3718 | | 6.6 | 152 | 51.2 | 7.0 | 13.1 | 2.1 | 0.005 | 5 | 80 | | 3.0 | 0.24 | 2.095 | 6.285 |
| 220 | 1 | 3 | 3720 | | 5.3 | 139 | 54.8 | 7.6 | 10.4 | 2.4 | 0.007 | 6 | 0 | | 3.0 | 0.29 | 2.393 | 7.179 |
| 221 | 1 | 3 | 3735 | | 5.0 | 136 | 58.3 | 8.2 | 10.7 | 3.0 | 0.014 | 5 | 0 | | 3.0 | 0.47 | 2.986 | 8.958 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ Check # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| 222 | 1 | 3 | 3736 | | 3.4 | 122 | 61.2 | 7.4 | 11.6 | 2.2 | 0.017 | 5 | 0 | | 2.0 | 0.77 | 2.183 | 6.549 |
| 223 | 1 | 3 | 1 | | 5.3 | 122 | 91.2 | 7.6 | 13.3 | 2.8 | 0.019 | 5 | 0 | | 2.0 | 0.68 | 2.781 | 8.343 |
| 224 | 1 | 3 | 3739 | | 4.0 | 137 | 63.7 | 9.0 | 11.8 | 4.4 | 0.029 | 6 | 0 | | 3.0 | 0.66 | 4.371 | 13.113 |
| 225 | 1 | 3 | 3741 | | 6.6 | 138 | 55.7 | 8.1 | 10.8 | 2.0 | 0.012 | 6 | 0 | | 2.0 | 0.60 | 1.988 | 5.964 |
| 226 | 1 | 3 | 3753 | | 4.8 | 135 | 72.1 | 7.2 | 10.9 | 2.6 | 0.016 | 6 | 0 | | 3.5 | 0.62 | 2.584 | 7.752 |
| 227 | 1 | 3 | 3765 | | 6.9 | 136 | 63.0 | 7.9 | 12.2 | 2.9 | 0.022 | 6 | 100 | | 2.0 | 0.76 | 2.878 | 8.634 |
| 228 | 1 | 3 | 3771 | | #DIV/0! | 122 | 75.2 | 8.4 | 9.6 | 4.8 | 0.032 | 5 | 100 | | | 0.67 | 4.768 | 14.304 |
| 229 | 1 | 3 | 3775 | | #DIV/0! | 130 | 59.9 | 7.4 | 9.5 | 4.0 | 0.019 | 5 | 0 | | 2.0 | 0.48 | 3.981 | 11.943 |
| 230 | 1 | 3 | 3783 | | 6.0 | 131 | 36.5 | 5.8 | 9.1 | 1.7 | 0.004 | 6 | 100 | | 1.0 | 0.24 | 1.696 | 5.088 |
| 231 | 1 | 3 | 3784 | | 7.9 | 122 | 55.7 | 7.6 | 11.8 | 3.1 | 0.012 | 3 | 0 | | 3.5 | 0.39 | 3.088 | 9.264 |
| 232 | 1 | 3 | 3786 | | 7.0 | 142 | 46.6 | 6.7 | 8.4 | 1.7 | 0.002 | 3 | 100 | | 1.0 | 0.12 | 1.698 | 5.094 |
| 233 | 1 | 3 | 3790 | | 4.8 | 139 | 59.8 | 7.0 | 8.7 | 2.2 | 0.005 | 5 | 0 | | 2.5 | 0.23 | 2.195 | 6.585 |
| 234 | 1 | 3 | 3801 | | 6.9 | 145 | 57.3 | 6.8 | 12.9 | 3.2 | | 6 | 60 | | 3.0 | 0.00 | 3.200 | 9.6 |
| 235 | 1 | 3 | 3803 | | 6.3 | 147 | 73.9 | 6.2 | 11.6 | 3.8 | 0.016 | 4 | 100 | | 3.0 | 0.42 | 3.784 | 11.352 |
| 236 | 1 | 3 | 3806 | | 6.7 | 145 | 53.9 | 6.3 | 12.7 | 3.7 | 0.002 | 5 | 60 | | 2.0 | 0.05 | 3.698 | 11.094 |
| 237 | 1 | 3 | 3809 | | 4.5 | 139 | 63.1 | 6.8 | 12.9 | 3.4 | 0.007 | 4 | 100 | | 2.0 | 0.21 | 3.393 | 10.179 |
| 238 | 1 | 3 | 3811 | | 5.0 | 149 | 91.5 | 7.1 | 12.9 | 5.3 | 0.019 | 5 | 100 | | 3.0 | 0.36 | 5.281 | 15.843 |
| 239 | 1 | 3 | 3813 | | 4.4 | | 65.0 | 8.1 | 12.4 | 6.6 | 0.012 | 3 | 100 | | 3.0 | 0.18 | 6.588 | 19.764 |
| 240 | 1 | 3 | 3 | | 6.2 | 130 | 76.1 | 7.9 | 11.1 | 2.0 | 0.007 | 6 | 60 | | 2.0 | 0.35 | 1.993 | 5.979 |
| 241 | 1 | 3 | 3816 | | 5.0 | | 53.4 | 7.9 | 11.8 | 2.2 | 0.002 | 6 | 0 | | 1.0 | 0.09 | 2.198 | 6.594 |
| 242 | 1 | 3 | 3817 | | 7.5 | 147 | 63.8 | 7.0 | 11.1 | 3.8 | 0.007 | 3 | 100 | | 3.5 | 0.18 | 3.793 | 11.379 |
| 243 | 1 | 3 | 3819 | | 4.1 | 150 | 50.4 | 6.8 | 10.2 | 1.8 | 0.001 | 5 | 90 | | 3.5 | 0.06 | 1.799 | 5.397 |
| 244 | 1 | 3 | 3824 | | 3.8 | 150 | 52.5 | 8.1 | 13.1 | 2.0 | 0.003 | 5 | 0 | | 3.0 | 0.15 | 1.997 | 5.991 |
| 245 | 1 | 3 | 3825 | | 6.5 | 122 | 57.8 | 7.7 | 13.8 | 2.5 | 0.017 | 5 | 100 | | 3.0 | 0.68 | 2.483 | 7.449 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ Check # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| 246 | 1 | 3 | 3826 | | 6.2 | 142 | 58.5 | 6.7 | 12.7 | 2.5 | 0.009 | 5 | 0 | | 1.0 | 0.36 | 2.491 | 7.473 |
| 247 | 1 | 3 | 3827 | | 6.1 | 142 | 57.7 | 6.7 | 13.5 | 3.7 | 0.031 | 4 | 100 | | 2.5 | 0.84 | 3.669 | 11.007 |
| 248 | 1 | 3 | 3828 | | 5.0 | 147 | 59.2 | 8.1 | 13.3 | 4.0 | 0.021 | 4 | 70 | | 4.5 | 0.53 | 3.979 | 11.937 |
| 249 | 1 | 3 | 3904 | | 5.3 | 145 | 75.2 | 8.0 | 12.0 | 3.3 | 0.012 | 5 | 100 | | 3.0 | 0.36 | 3.288 | 9.864 |
| 250 | 1 | 3 | 3906 | | 3.7 | 146 | 53.4 | 7.8 | 9.6 | 2.1 | 0.007 | 3 | 0 | | 1.0 | 0.33 | 2.093 | 6.279 |
| 251 | 1 | 3 | 3907 | | 6.3 | 137 | 72.2 | 8.5 | 11.6 | 3.5 | 0.007 | 3 | 100 | | 3.0 | 0.20 | 3.493 | 10.479 |
| 252 | 1 | 3 | 3911 | | 6.4 | 139 | 60.6 | 7.2 | 12.0 | 3.7 | 0.01 | 4 | 100 | | 3.0 | 0.27 | 3.690 | 11.07 |
| 253 | 1 | 3 | 4 | | 4.1 | 140 | 67.7 | 7.1 | 10.7 | 2.1 | 0.006 | 4 | 100 | | 2.0 | 0.29 | 2.094 | 6.282 |
| 254 | 1 | 3 | 3912 | | 4.0 | 142 | 78.8 | 6.5 | 11.8 | 3.4 | 0.01 | 4 | 100 | | 3.0 | 0.29 | 3.390 | 10.17 |
| 255 | 1 | 3 | 3914 | | 7.1 | 141 | 72.3 | 7.7 | 11.6 | 4.9 | 0.029 | 3 | 50 | | 4.5 | 0.59 | 4.871 | 14.613 |
| 256 | 1 | 3 | 3917 | | 6.9 | 142 | 62.0 | 7.6 | 10.4 | 3.2 | 0.035 | 4 | 100 | | 3.0 | 1.09 | 3.165 | 9.495 |
| 257 | 1 | 3 | 3918 | | 7.1 | 139 | 60.5 | 8.4 | 10.0 | 4.2 | 0.034 | 4 | 50 | | 3.0 | 0.81 | 4.166 | 12.498 |
| 258 | 1 | 3 | 3920 | | 6.5 | 92 | 38.1 | 6.9 | 7.8 | 2.1 | 0.012 | 4 | 50 | | 0.5 | 0.57 | 2.088 | 6.264 |
| 259 | 1 | 3 | 3922 | | 6.6 | 92 | 43.7 | 6.3 | 8.4 | 1.9 | 0.008 | 4 | 0 | | 1.0 | 0.42 | 1.892 | 5.676 |
| 260 | 1 | 3 | 3925 | | 4.4 | 139 | 77.7 | 8.3 | 10.2 | 4.4 | 0.035 | 4 | 0 | | 3.0 | 0.80 | 4.365 | 13.095 |
| 261 | 1 | 3 | 3930 | | #DIV/0! | 137 | 57.1 | 6.8 | 8.7 | 3.8 | 0.026 | 1 | 0 | | 3.5 | 0.68 | 3.774 | 11.322 |
| 262 | 1 | 3 | 3932 | | #DIV/0! | 139 | 78.1 | 7.0 | 10.4 | 3.1 | 0.008 | 1 | 100 | | 3.5 | 0.26 | 3.092 | 9.276 |
| 263 | 1 | 4 | 3934 | | 5.0 | 122 | 48.3 | 7.0 | 11.6 | 2.2 | 0.003 | 6 | 40 | | 3.5 | 0.14 | 2.197 | 6.591 |
| 264 | 1 | 4 | 3937 | | 4.9 | 122 | 50.4 | 6.3 | 10.5 | 2.0 | 0.006 | 5 | 100 | | 3.0 | 0.30 | 1.994 | 5.982 |
| 265 | 1 | 4 | 3939 | | 7.5 | 122 | 46.8 | 6.5 | 10.5 | 3.2 | 0.003 | 5 | 100 | | 1.0 | 0.09 | 3.197 | 9.591 |
| 266 | 1 | 4 | 3943 | | 5.8 | 132 | 73.0 | 7.2 | 11.1 | 2.9 | 0.004 | 5 | 100 | | 2.0 | 0.14 | 2.896 | 8.688 |
| 267 | 1 | 4 | 3946 | | 6.3 | 137 | 75.8 | 5.1 | 9.5 | 2.4 | 0.01 | 5 | 80 | | 2.0 | 0.42 | 2.390 | 7.17 |
| 268 | 1 | 4 | 3948 | | 3.8 | 121 | 45.9 | 5.9 | 13.6 | 1.2 | 0.01 | 5 | 100 | | 3.0 | 0.83 | 1.190 | 3.57 |
| 269 | 1 | 4 | 3955 | | 7.0 | 122 | 67.4 | 6.3 | 10.9 | 2.8 | 0.01 | 4 | 100 | | 3.0 | 0.36 | 2.790 | 8.37 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Check # | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| **270** | **1** | **4** | **2** | | 4.8 | 118 | 75.8 | 6.3 | 9.1 | 1.9 | 0.009 | 4 | 0 | | 2.0 | 0.47 | 1.891 | 5.673 |
| **271** | **1** | **4** | **3958** | | 5.6 | 118 | 79.3 | 6.2 | 8.2 | 2.9 | 0.007 | 3 | 100 | | 2.0 | 0.24 | 2.893 | 8.679 |
| **272** | **1** | **4** | **138** | | 3.9 | 120 | 67.3 | 7.5 | 9.3 | 1.8 | 0.012 | 3 | 0 | | 1.0 | 0.67 | 1.788 | 5.364 |
| **273** | **1** | **4** | **3962** | | 5.5 | 113 | 46.9 | 7.4 | 8.0 | 1.6 | 0.004 | 3 | 80 | | 1.0 | 0.25 | 1.596 | 4.788 |
| **274** | **1** | **4** | **3965** | | 4.3 | 92 | 51.6 | 6.1 | 9.8 | 2.4 | 0.005 | 4 | 80 | | 2.5 | 0.21 | 2.395 | 7.185 |
| **275** | **1** | **4** | **3969** | | 4.5 | 120 | 74.8 | 6.1 | 7.6 | 2.7 | 0.011 | 1 | 0 | | 3.0 | 0.41 | 2.689 | 8.067 |
| **276** | **1** | **4** | **3972** | | 6.1 | 121 | 73.3 | 6.1 | 8.4 | 2.3 | 0.008 | 1 | 100 | | 2.0 | 0.35 | 2.292 | 6.876 |
| **277** | **1** | **4** | **3977** | | 5.8 | 113 | 67.1 | 6.5 | 11.1 | 3.3 | 0.014 | 2 | 0 | | 1.5 | 0.42 | 3.286 | 9.858 |
| **278** | **1** | **4** | **4639** | | 5.8 | 106 | 60.8 | 6.1 | 11.8 | 2.7 | 0.011 | 2 | 100 | | 2.5 | 0.41 | 2.689 | 8.067 |
| **279** | **1** | **4** | **4732** | | 7.0 | 120 | 61.2 | 6.1 | 10.0 | 2.2 | 0.008 | 2 | 100 | | 1.5 | 0.36 | 2.192 | 6.576 |
| **280** | **1** | **4** | **6599** | | 5.8 | 120 | 57.1 | 7.7 | 10.7 | 2.8 | 0.008 | 2 | 60 | | 2.0 | 0.29 | 2.792 | 8.376 |
| **281** | **1** | **4** | **6600** | | 4.8 | 120 | 48.1 | 7.2 | 7.8 | 1.6 | 0.009 | 3 | 100 | | 2.0 | 0.56 | 1.591 | 4.773 |
| **282** | **1** | **4** | **6607** | | 5.0 | 122 | 64.4 | 7.1 | 11.6 | 2.3 | 0.002 | 7 | 100 | | 2.5 | 0.09 | 2.298 | 6.894 |
| **283** | **1** | **4** | **6637** | | 6.1 | 113 | 51.5 | 7.8 | 9.8 | 0.4 | 0.006 | 7 | 100 | | 2.0 | 1.50 | 0.394 | 1.182 |
| **284** | **1** | **4** | **6714** | | 5.6 | 122 | 61.5 | 6.7 | 11.6 | 3.2 | 0.009 | 2 | 80 | | 1.5 | 0.28 | 3.191 | 9.573 |
| **285** | **1** | **4** | **1** | | 6.7 | 120 | 80.9 | 6.8 | 12.0 | 2.4 | 0.007 | 5 | 0 | | 2.0 | 0.29 | 2.393 | 7.179 |
| **286** | **1** | **4** | **5061** | | 5.9 | 121 | 55.1 | 6.0 | 9.5 | 2.1 | 0.011 | 2 | 100 | | 1.0 | 0.52 | 2.089 | 6.267 |
| **287** | **1** | **4** | **7024** | | 4.2 | 122 | 66.0 | 7.5 | 10.2 | 2.5 | 0.01 | 5 | 100 | | 2.0 | 0.40 | 2.490 | 7.47 |
| **288** | **1** | **4** | **40122** | | 3.6 | 118 | 51.0 | 8.0 | 10.0 | 2.5 | 0.004 | 4 | 100 | | 2.0 | 0.16 | 2.496 | 7.488 |
| **289** | **1** | **4** | **1459** | | 5.4 | 113 | 45.3 | 8.2 | 8.2 | 1.7 | 0.015 | 5 | 100 | | 2.0 | 0.88 | 1.685 | 5.055 |
| **290** | **1** | **4** | **3919** | | 6.8 | 118 | 51.0 | 6.2 | 11.6 | 1.7 | 0.003 | 5 | 60 | | 2.0 | 0.18 | 1.697 | 5.091 |
| **291** | **1** | **4** | **5051** | | 5.3 | 106 | 53.6 | 7.2 | 12.7 | 2.3 | 0.009 | 4 | 50 | | 2.0 | 0.39 | 2.291 | 6.873 |
| **292** | **1** | **4** | **5052** | | 5.0 | 118 | 50.2 | 5.7 | 12.7 | 2.5 | 0.007 | 2 | 100 | | 2.5 | 0.28 | 2.493 | 7.479 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ Check # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| 293 | 1 | 4 | 3834 | | 4.5 | 122 | 44.7 | 4.9 | 13.3 | 1.8 | 0.003 | 3 | 100 | | 2.0 | 0.17 | 1.797 | 5.391 |
| 294 | 1 | 4 | 3839 | | 4.3 | 120 | 53.5 | 6.9 | 11.5 | 0.7 | 0.004 | 3 | 0 | | 1.5 | 0.57 | 0.696 | 2.088 |
| 295 | 1 | 4 | 3841 | | 4.1 | 118 | 56.5 | 5.3 | 12.0 | 2.3 | 0.005 | 3 | 0 | | 2.0 | 0.22 | 2.295 | 6.885 |
| 296 | 1 | 4 | 3842 | | 4.9 | 118 | 44.3 | 6.6 | 12.4 | 1.8 | 0.001 | 3 | 80 | | 2.0 | 0.06 | 1.799 | 5.397 |
| 297 | 1 | 4 | 3844 | | 5.7 | 118 | 51.5 | 5.5 | 11.1 | 2.6 | 0.002 | 2 | 100 | | 2.5 | 0.08 | 2.598 | 7.794 |
| 298 | 1 | 4 | 3847 | | 2.4 | 118 | 51.5 | 6.3 | 10.7 | 1.8 | 0.006 | 2 | 100 | | 1.5 | 0.33 | 1.794 | 5.382 |
| 299 | 1 | 4 | 3849 | | 6.2 | 122 | 57.3 | 6.1 | 11.1 | 2.3 | 0.002 | 2 | 0 | | 0.5 | 0.09 | 2.298 | 6.894 |
| 300 | 1 | 4 | 3853 | | 4.4 | 121 | 66.8 | 6.6 | 14.2 | 2.4 | 0.008 | 2 | 90 | | 1.5 | 0.33 | 2.392 | 7.176 |
| 301 | 1 | 4 | 1 | | 6.3 | 118 | 61.3 | 6.7 | 8.4 | 1.5 | 0.003 | 2 | 0 | | 1.5 | 0.20 | 1.497 | 4.491 |
| 302 | 1 | 4 | 3854 | | 6.2 | 118 | 70.3 | 6.6 | 10.0 | 2.6 | 0.001 | 3 | 60 | | 1.5 | 0.04 | 2.599 | 7.797 |
| 303 | 1 | 4 | 3860 | | 5.1 | 120 | 56.5 | 7.2 | 8.5 | 2.9 | 0.003 | 3 | 0 | | 2.5 | 0.10 | 2.897 | 8.691 |
| 304 | 1 | 4 | 3861 | | 4.5 | 137 | 60.2 | 7.1 | 12.4 | 2.9 | 0.003 | 3 | 100 | | 3.0 | 0.10 | 2.897 | 8.691 |
| 305 | 1 | 4 | 3863 | | 7.1 | 139 | 56.9 | 6.5 | 10.7 | 2.3 | 0.001 | 3 | 0 | | 3.0 | 0.04 | 2.299 | 6.897 |
| 306 | 1 | 4 | 3864 | | 5.8 | 141 | 69.9 | 6.5 | 9.3 | 3.5 | 0.005 | 3 | 90 | | 2.0 | 0.14 | 3.495 | 10.485 |
| 307 | 1 | 4 | 3866 | | 6.4 | 142 | 56.9 | 6.6 | 10.5 | 2.3 | 0.005 | 2 | 100 | | 1.0 | 0.22 | 2.295 | 6.885 |
| 308 | 1 | 4 | 3875 | | 4.1 | 113 | 93.4 | 7.4 | 11.5 | 3.0 | 0.001 | 3 | 0 | | 1.5 | 0.03 | 2.999 | 8.997 |
| 309 | 1 | 4 | 3879 | | 8.1 | 129 | 52.5 | 6.7 | 10.7 | 2.2 | 0.002 | 4 | 100 | | 2.5 | 0.09 | 2.198 | 6.594 |
| 310 | 1 | 4 | 3880 | | 4.1 | 118 | 49.7 | 6.4 | 10.7 | 2.3 | 0.003 | 4 | 0 | | 3.0 | 0.13 | 2.297 | 6.891 |
| 311 | 1 | 4 | 3884 | | 6.8 | 139 | 60.4 | 6.8 | 10.7 | 2.9 | 0.002 | 3 | 60 | | 1.5 | 0.07 | 2.898 | 8.694 |
| 312 | 1 | 4 | 3885 | | 4.6 | 123 | 96.5 | 6.6 | 12.2 | 2.3 | 0.002 | 4 | 100 | | 2.0 | 0.09 | 2.298 | 6.894 |
| 313 | 1 | 4 | 3891 | | 5.1 | 97 | 104.1 | 6.6 | 11.5 | 2.9 | 0.001 | 4 | 100 | | 2.0 | 0.03 | 2.899 | 8.697 |
| 314 | 1 | 4 | 3895 | | 4.9 | 122 | 71.6 | 6.4 | 10.0 | 2.2 | 0.001 | 4 | 100 | | 3.5 | 0.05 | 2.199 | 6.597 |
| 315 | 1 | 4 | 3897 | | 3.0 | 123 | 47.2 | 6.5 | 10.5 | 1.8 | 0.002 | 2 | 100 | | 2.0 | 0.11 | 1.798 | 5.394 |
| 316 | 1 | 4 | 4 | | 4.5 | 127 | 56.2 | 6.5 | 10.7 | 2.2 | 0.001 | 6 | 100 | | 2.0 | 0.05 | 2.199 | 6.597 |
| 317 | 1 | 4 | 3899 | | 5.9 | 125 | 50.3 | 6.1 | 9.6 | 3.0 | 0.001 | 5 | 80 | | 3.0 | 0.03 | 2.999 | 8.997 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ Check # | Traits | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGW |
| 101 | 2 | 1 | 1 | 79.8 | 1.6 | | 83.2 | 7.5 | 6.0 | 0.5 | 0.006 | 3 | 100 | 3 | 0.5 | 1.20 | 0.494 | 1.482 |
| 102 | 2 | 1 | 33 | 63.8 | 6.7 | 82 | 51.0 | 7.5 | 5.4 | 0.4 | 0.008 | 2 | 100 | 2 | 0.3 | 2.00 | 0.392 | 1.176 |
| 103 | 2 | 1 | 66 | 89.2 | 4.6 | 147 | 53.3 | 8.6 | 5.7 | 1.6 | 0.02 | 3 | 0 | 3 | 1.0 | 1.25 | 1.58 | 4.74 |
| 104 | 2 | 1 | 101 | 67.8 | 5.1 | 150 | 54.6 | 7.4 | 5.5 | 0.5 | 0.01 | 3 | 100 | 2 | 0.5 | 2.00 | 0.49 | 1.47 |
| 105 | 2 | 1 | 102 | 77.0 | 6.7 | 149 | 56.3 | 6.8 | 5.0 | 0.6 | 0.007 | 3 | 100 | 2 | 2.0 | 1.17 | 0.593 | 1.779 |
| 106 | 2 | 1 | 103 | 71.0 | 3.4 | 98 | 36.6 | 8.6 | 3.2 | 0.0 | 0.002 | 2 | 80 | 1 | 0.5 | #DIV/0! | -0.002 | -0.006 |
| 107 | 2 | 1 | 106 | 75.7 | 10.4 | 118 | 39.5 | 6.2 | 6.3 | 0.7 | 0.011 | 3 | 0 | 3 | 2.0 | 1.57 | 0.689 | 2.067 |
| 108 | 2 | 1 | 109 | 72.8 | 6.8 | 139 | 44.9 | 7.4 | 5.8 | 0.8 | 0.007 | 3 | 100 | 3 | 2.0 | 0.88 | 0.793 | 2.379 |
| 109 | 2 | 1 | 110 | 84.0 | 6.1 | 118 | 55.2 | 5.6 | 5.5 | 0.5 | 0.004 | 4 | 80 | 3 | 2.0 | 0.80 | 0.496 | 1.488 |
| 110 | 2 | 1 | 111 | 75.6 | 8.1 | 143 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 | | 3 | 0 | 2 | 2.0 | #DIV/0! | 0 | 0 |
| 111 | 2 | 1 | 112 | 76.9 | 7.3 | 147 | 42.2 | 9.3 | 5.2 | 2.2 | | 3 | 0 | 2 | 2.0 | 0.00 | 2.2 | 6.6 |
| 112 | 2 | 1 | 114 | 76.5 | 5.2 | 118 | 53.6 | 5.9 | 6.6 | 0.7 | 0.007 | 2 | 90 | 1 | 1.0 | 1.00 | 0.693 | 2.079 |
| 113 | 2 | 1 | 115 | 70.9 | 6.4 | 118 | 66.6 | 6.9 | 5.2 | 1.0 | 0.011 | 3 | 100 | 3 | 1.5 | 1.10 | 0.989 | 2.967 |
| 114 | 2 | 1 | 118 | 61.9 | 7.0 | 149 | 51.8 | 7.2 | 6.5 | 1.2 | 0.007 | 4 | 0 | 3 | 2.0 | 0.58 | 1.193 | 3.579 |
| 115 | 2 | 1 | 3 | 58.7 | 5.3 | 118 | 59.3 | 6.5 | 5.0 | 0.3 | 0.003 | 3 | 60 | 3 | 2.5 | 1.00 | 0.297 | 0.891 |
| 116 | 2 | 1 | 119 | 79.7 | 7.1 | 148 | 61.0 | 6.7 | 7.2 | 0.6 | 0.009 | 3 | 100 | 3 | 2.0 | 1.50 | 0.591 | 1.773 |
| 117 | 2 | 1 | 120 | 65.8 | 6.9 | 150 | 44.8 | 8.5 | 5.8 | 0.7 | 0.01 | 3 | 100 | 3 | 2.0 | 1.43 | 0.69 | 2.07 |
| 118 | 2 | 1 | 121 | 78.0 | 6.4 | 118 | 58.3 | 6.8 | 7.1 | 0.2 | 0.006 | 2 | 90 | 2 | 2.5 | 3.00 | 0.194 | 0.582 |
| 119 | 2 | 1 | 122 | 76.4 | 7.0 | 147 | 50.8 | 9.5 | 6.2 | 1.0 | 0.012 | 2 | 80 | 2 | 1.5 | 1.20 | 0.988 | 2.964 |
| 120 | 2 | 1 | 123 | 81.0 | 7.4 | 149 | 62.3 | 7.7 | 6.3 | 1.0 | 0.009 | 4 | 100 | 4 | 3.0 | 0.90 | 0.991 | 2.973 |
| 121 | 2 | 1 | 124 | 61.7 | 6.3 | 148 | 52.7 | 9.2 | 6.6 | 1.5 | 0.025 | 3 | 80 | 3 | 2.0 | 1.67 | 1.475 | 4.425 |
| 122 | 2 | 1 | 125 | 54.5 | 6.3 | 149 | 53.2 | 8.0 | 5.8 | 0.9 | 0.009 | 4 | 100 | 3 | 3.5 | 1.00 | 0.891 | 2.673 |
| 123 | 2 | 1 | 126 | 60.0 | 7.0 | 150 | 53.5 | 7.8 | 5.0 | 0.8 | 0.009 | 3 | 100 | 3 | 2.5 | 1.13 | 0.791 | 2.373 |
| 124 | 2 | 1 | 127 | 71.0 | 3.2 | 143 | 60.0 | 7.4 | 5.7 | 1.3 | 0.012 | 5 | 30 | 4 | 4.0 | 0.92 | 1.288 | 3.864 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Check # | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW |
| 125 | 2 | 1 | 128 | 73.8 | 6.2 | 147 | 69.9 | 7.5 | 6.5 | 0.8 | 0.012 | 4 | 100 | 3 | 3.0 | 1.50 | 0.788 |
| 126 | 2 | 1 | 129 | 63.2 | 4.2 | 146 | 58.4 | 6.8 | 6.3 | 0.7 | 0.002 | 3 | 60 | 2 | | 0.29 | 0.698 |
| 127 | 2 | 1 | 130 | 77.2 | 4.7 | 146 | 58.2 | 7.7 | 6.2 | 1.3 | 0.016 | 5 | 80 | 3 | | 1.23 | 1.284 |
| 128 | 2 | 1 | 131 | 82.2 | 8.9 | 147 | 74.2 | 7.5 | 5.9 | 2.0 | 0.016 | 4 | 100 | 2 | | 0.80 | 1.984 |
| 129 | 2 | 1 | 132 | 71.0 | 6.3 | 148 | 63.7 | 7.4 | 6.8 | 1.0 | 0.01 | 4 | 50 | 2 | | 1.00 | 0.99 |
| 130 | 2 | 1 | 165 | 61.0 | 5.8 | 118 | 67.9 | 7.2 | 5.7 | 0.5 | 0.01 | 3 | 80 | 2 | | 2.00 | 0.49 |
| 131 | 2 | 1 | 133 | 61.5 | 5.9 | 150 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 | | 4 | 100 | 3 | | #DIV/0! | 0 |
| 132 | 2 | 1 | 137 | 47.8 | 9.0 | 144 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 | | 3 | 100 | 2 | 3.0 | #DIV/0! | 0 |
| 133 | 2 | 1 | 140 | #DIV/0! | #DIV/0! | 147 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 | | 3 | 0 | 2 | 2.5 | #DIV/0! | 0 |
| 134 | 2 | 1 | 143 | 76.8 | 6.3 | 147 | 60.3 | 9.2 | 4.7 | 1.8 | 0.014 | 0 | 0 | 3 | 2.0 | 0.78 | 1.786 |
| 135 | 2 | 1 | 144 | 67.3 | 6.1 | 146 | 51.9 | 7.6 | 7.0 | 1.7 | 0.01 | 4 | 100 | 3 | 3.0 | 0.59 | 1.69 |
| 136 | 2 | 1 | 146 | 60.0 | 5.5 | 150 | 61.2 | 8.0 | 5.5 | 1.2 | 0.012 | 4 | 100 | 2 | 3.0 | 1.00 | 1.188 |
| 137 | 2 | 1 | 147 | 55.3 | 6.6 | 150 | 46.7 | 8.3 | 5.9 | 1.9 | 0.035 | 4 | 0 | 2 | 0.5 | 1.84 | 1.865 |
| 138 | 2 | 1 | 148 | 66.1 | 7.0 | 150 | 58.9 | 7.9 | 5.4 | 1.2 | 0.012 | 3 | 70 | 3 | 1.0 | 1.00 | 1.188 |
| 139 | 2 | 1 | 149 | 61.6 | 4.9 | 145 | 31.5 | 7.0 | 4.0 | -0.2 | 0.002 | 4 | 0 | 1 | 3.5 | -1.00 | -0.202 |
| 140 | 2 | 1 | 152 | 62.7 | 6.3 | 146 | 50.6 | 7.7 | 6.3 | 1.3 | 0.004 | 2 | 100 | 3 | 3.0 | 0.31 | 1.296 |
| 141 | 2 | 1 | 153 | 67.3 | 6.3 | 146 | 45.6 | 7.5 | 8.0 | 2.2 | 0.022 | 3 | 100 | 3 | 0.3 | 1.00 | 2.178 |
| 142 | 2 | 1 | 154 | 80.2 | 6.9 | 149 | 52.6 | 8.6 | 7.3 | 3.6 | 0.016 | 4 | 60 | 4 | 4.0 | 0.44 | 3.584 |
| 143 | 2 | 1 | 155 | 52.0 | 5.1 | 105 | 44.2 | 6.8 | 3.2 | -0.2 | 0.001 | 5 | 100 | 1 | 2.0 | -0.50 | -0.201 |
| 144 | 2 | 1 | 156 | 79.2 | 6.9 | 149 | 54.9 | 8.8 | 5.5 | 1.7 | 0.011 | 1 | 100 | 3 | 3.0 | 0.65 | 1.689 |
| 145 | 2 | 1 | 157 | 60.5 | 6.5 | 147 | 44.5 | 8.3 | 6.6 | 2.3 | 0.032 | 4 | 60 | 2 | 3.5 | 1.39 | 2.268 |
| 146 | 2 | 1 | 4 | 69.3 | 5.7 | 120 | 61.0 | 9.3 | 5.7 | 1.5 | 0.028 | 2 | 100 | 1 | 3.5 | 1.87 | 1.472 |
| 147 | 2 | 1 | 159 | 69.2 | 4.9 | 149 | 55.2 | 6.7 | 5.2 | 1.5 | 0.018 | 1 | 100 | 2 | 1.0 | 1.20 | 1.482 |
| 148 | 2 | 1 | 162 | 68.0 | 5.4 | 146 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 | | 3 | 50 | 2 | 2.0 | #DIV/0! | 0 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Check # | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| 149 | 2 | 1 | 168 | 87.7 | 4.7 | 146 | 57.3 | 7.3 | 6.0 | 3.2 | 0.025 | 3 | 80 | 2 | 1.0 | 0.78 | 3.175 | 9.52 |
| 150 | 2 | 1 | 173 | 72.1 | 5.0 | 146 | 52.3 | 7.0 | 6.7 | 2.2 | 0.018 | 3 | 100 | 2 | 1.0 | 0.82 | 2.182 | 6.54 |
| 151 | 2 | 1 | 175 | 59.3 | 4.7 | 150 | 51.9 | 7.6 | 6.0 | 0.7 | 0.008 | 3 | 100 | 2 | 2.0 | 1.14 | 0.692 | 2.07 |
| 152 | 2 | 1 | 3834 | 58.0 | 6.8 | 143 | 48.1 | 7.5 | 7.6 | 2.8 | 0.021 | 3 | 0 | 2 | 0.5 | 0.75 | 2.779 | 8.33 |
| 153 | 2 | 1 | 186 | 70.5 | 5.2 | 142 | 50.3 | 7.5 | 5.5 | 1.7 | 0.009 | 3 | 90 | 3 | 2.0 | 0.53 | 1.691 | 5.07 |
| 154 | 2 | 1 | 187 | 74.0 | 5.5 | 143 | 46.0 | 7.6 | 5.4 | 1.5 | 0.004 | 4 | 80 | 3 | 3.0 | 0.27 | 1.496 | 4.48 |
| 155 | 2 | 2 | 190 | 66.1 | 6.1 | 147 | 51.6 | 7.0 | 6.4 | 2.3 | 0.017 | 3 | 100 | 2 | 2.5 | 0.74 | 2.283 | 6.84 |
| 156 | 2 | 2 | 194 | 85.3 | 4.7 | 120 | 53.0 | 7.2 | 6.0 | 1.6 | 0.002 | 3 | 70 | 3 | 3.0 | 0.13 | 1.598 | 4.79 |
| 157 | 2 | 2 | 195 | 77.0 | 6.7 | 150 | 58.9 | 5.9 | 5.6 | 0.4 | 0.006 | 4 | 80 | 2 | 2.0 | 1.50 | 0.394 | 1.18 |
| 158 | 2 | 2 | 197 | 73.3 | 6.1 | 118 | 80.3 | 7.4 | 6.8 | 2.5 | 0.012 | 3 | 100 | 2 | 2.5 | 0.48 | 2.488 | 7.46 |
| 159 | 2 | 2 | 198 | 76.8 | 7.4 | 149 | 55.7 | 7.4 | 5.6 | 1.7 | 0.015 | 3 | 100 | 2 | 3.0 | 0.88 | 1.685 | 5.05 |
| 160 | 2 | 2 | 199 | 68.0 | 4.8 | 147 | 45.9 | 6.9 | 6.8 | 1.2 | 0.016 | 3 | 50 | 2 | 2.5 | 1.33 | 1.184 | 3.55 |
| 161 | 2 | 2 | 200 | 66.6 | 8.0 | 118 | 51.7 | 6.5 | 5.4 | 2.6 | 0.011 | 3 | 90 | 1 | 3.0 | 0.42 | 2.589 | 7.76 |
| 162 | 2 | 2 | 203 | 64.5 | 6.8 | 118 | 48.3 | 6.4 | 5.3 | 2.5 | 0.008 | 2 | 100 | 3 | 3.5 | 0.32 | 2.492 | 7.47 |
| 163 | 2 | 2 | 208 | 58.8 | 5.3 | 145 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 | | 5 | 60 | 4 | | #DIV/0! | 0 | |
| 164 | 2 | 2 | 209 | 70.5 | 8.4 | 146 | 59.6 | 6.7 | 5.2 | 0.0 | 0.019 | 4 | 100 | 4 | 3.5 | #DIV/0! | -0.019 | -0.05 |
| 165 | 2 | 2 | 211 | 68.6 | 5.1 | 120 | 59.9 | 7.6 | 5.0 | 5.6 | 0.006 | 5 | 100 | 3 | 3.5 | 0.11 | 5.594 | 16.78 |
| 166 | 2 | 2 | 212 | 67.6 | 3.9 | 120 | 44.0 | 8.1 | 4.6 | 3.3 | 0.012 | 3 | 100 | 2 | 3.0 | 0.36 | 3.288 | 9.86 |
| 168 | 2 | 2 | 4 | 87.6 | 5.3 | 147 | 53.3 | 7.6 | 5.4 | 2.3 | 0.005 | 3 | 100 | 3 | 3.0 | 0.22 | 2.295 | 6.88 |
| 169 | 2 | 2 | 214 | 78.3 | 6.2 | 148 | 65.4 | 7.2 | 5.1 | 1.1 | 0.004 | 5 | 100 | 3 | 1.5 | 0.36 | 1.096 | 3.28 |
| 170 | 2 | 2 | 216 | 82.5 | 6.4 | 149 | 55.4 | 7.8 | 6.3 | 6.5 | 0.01 | 4 | 0 | 3 | 3.5 | 0.15 | 6.49 | 19.4 |
| 171 | 2 | 2 | 218 | 76.1 | 5.6 | 150 | 56.8 | 5.5 | 7.3 | 1.5 | 0.004 | 5 | 70 | 3 | 3.5 | 0.27 | 1.496 | 4.48 |
| 172 | 2 | 2 | 219 | 61.2 | 5.5 | 150 | 56.8 | 7.0 | 5.7 | 1.8 | 0.01 | 4 | 70 | 3 | 2.5 | 0.56 | 1.79 | 5.3 |
| 173 | 2 | 2 | 220 | 79.8 | 4.6 | 149 | 55.4 | 7.8 | 6.1 | 2.4 | 0.01 | 4 | 70 | 3 | 3.0 | 0.42 | 2.39 | 7.1 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ Check # | Traits | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| 174 | 2 | 2 | 221 | 68.7 | 5.3 | 147 | 55.9 | 8.6 | 5.9 | 2.3 | 0.004 | 4 | 80 | 2 | 2.5 | 0.17 | 2.296 | 6.88 |
| 175 | 2 | 2 | 222 | 63.7 | 6.7 | 145 | 55.0 | 9.0 | 4.7 | 1.3 | 0.003 | 4 | 100 | 1 | 3.5 | 0.23 | 1.297 | 3.89 |
| 176 | 2 | 2 | 223 | 50.0 | 5.7 | 118 | 38.3 | 6.2 | 3.5 | 0.2 | 0.016 | 3 | 60 | 3 | 3.0 | 8.00 | 0.184 | 0.55 |
| 177 | 2 | 2 | 224 | 71.1 | 7.2 | 121 | 55.1 | 6.6 | 5.8 | 3.8 | 0.001 | 2 | 80 | 2 | 4.0 | 0.03 | 3.799 | 11.39 |
| 178 | 2 | 2 | 225 | 70.9 | 4.2 | 118 | 59.1 | 7.0 | 5.7 | 2.3 | 0.008 | 4 | 100 | 1 | 2.0 | 0.35 | 2.292 | 6.87 |
| 179 | 2 | 2 | 226 | 61.4 | 4.5 | 121 | 36.0 | 5.2 | 6.5 | 0.3 | 0.005 | 3 | 100 | 2 | 2.5 | 1.67 | 0.295 | 0.88 |
| 180 | 2 | 2 | 227 | 78.6 | 5.6 | 122 | 51.6 | 7.3 | 4.5 | 1.3 | 0.005 | 2 | 100 | 2 | 2.5 | 0.38 | 1.295 | 3.88 |
| 181 | 2 | 2 | 229 | 91.7 | 5.8 | 120 | 69.7 | 8.6 | 5.2 | 1.7 | 0.001 | 3 | 100 | 3 | 3.0 | 0.06 | 1.699 | 5.09 |
| 182 | 2 | 2 | 235 | 79.6 | 5.1 | 142 | 55.1 | 6.8 | 5.6 | 1.6 | 0.009 | 2 | 100 | 3 | 3.5 | 0.56 | 1.591 | 4.77 |
| 183 | 2 | 2 | 238 | 82.6 | 4.5 | 118 | 46.1 | 7.0 | 5.6 | 3.6 | 0.006 | 3 | 100 | 2 | 2.5 | 0.17 | 3.594 | 10.78 |
| 184 | 2 | 2 | 240 | 70.0 | 5.6 | 118 | 72.4 | 7.0 | 6.1 | 0.8 | 0.004 | 3 | 100 | 2 | 1.0 | 0.50 | 0.796 | 2.38 |
| 185 | 2 | 2 | 241 | 77.3 | 6.1 | 121 | 62.3 | 7.5 | 4.8 | 1.4 | 0.007 | 3 | 0 | 2 | 1.5 | 0.50 | 1.393 | 4.17 |
| 186 | 2 | 2 | 245 | 80.4 | 6.2 | 149 | 48.0 | 6.3 | 5.0 | 1.2 | 0.004 | 2 | 50 | 2 | 2.5 | 0.33 | 1.196 | 3.58 |
| 187 | 2 | 2 | 246 | 74.1 | 4.5 | 150 | 53.4 | 7.1 | 5.3 | 1.6 | 0.006 | 3 | 90 | 3 | 3.0 | 0.38 | 1.594 | 4.78 |
| 188 | 2 | 2 | 252 | 91.4 | 5.0 | 143 | 61.8 | 6.8 | 5.8 | 1.9 | 0.002 | 3 | 100 | 3 | 3.0 | 0.11 | 1.898 | 5.69 |
| 189 | 2 | 2 | 254 | 80.9 | 5.9 | 142 | 63.3 | 7.7 | 5.9 | 2.9 | 0.002 | 4 | 90 | 2 | 2.5 | 0.07 | 2.898 | 8.69 |
| 190 | 2 | 2 | 257 | 76.7 | 3.7 | 122 | 88.3 | 7.8 | 7.1 | 1.7 | 0.022 | 3 | 100 | 3 | 3.0 | 1.29 | 1.678 | 5.03 |
| 191 | 2 | 2 | 263 | 77.7 | 5.2 | 143 | 68.8 | 7.5 | 5.9 | 1.8 | 0.005 | 3 | 80 | 2 | 2.0 | 0.28 | 1.795 | 5.38 |
| 192 | 2 | 2 | 266 | 88.1 | 5.0 | 122 | 56.7 | 7.2 | 6.7 | 4.0 | 0.006 | 4 | 70 | 3 | 4.0 | 0.15 | 3.994 | 11.98 |
| 193 | 2 | 2 | 3 | 91.4 | 5.0 | 143 | 66.3 | 7.8 | 6.3 | 1.9 | 0.009 | 4 | 60 | 3 | 3.0 | 0.47 | 1.891 | 5.67 |
| 194 | 2 | 2 | 269 | 88.2 | 4.8 | 149 | 58.3 | 8.4 | 6.0 | 3.6 | 0.039 | 4 | 100 | 0 | 4.0 | 1.08 | 3.561 | 10.68 |
| 195 | 2 | 2 | 3605 | #DIV/0! | #DIV/0! | 147 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 | | 2 | 0 | 1 | 3.5 | #DIV/0! | 0 | |
| 196 | 2 | 2 | 3607 | #DIV/0! | #DIV/0! | 146 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 | | 4 | 0 | 3 | 3.5 | #DIV/0! | 0 | |
| 197 | 2 | 2 | 3609 | 88.0 | 3.8 | 121 | 63.2 | 6.4 | 6.6 | 1.7 | 0.009 | 5 | 0 | 3 | 4.0 | 0.53 | 1.691 | 5.07 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ | Traits | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Check # | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| **198** | **2** | **2** | **3614** | 85.3 | 3.9 | 121 | 63.8 | 7.9 | 7.0 | 1.1 | 0.006 | 6 | 0 | 3 | 1.0 | 0.55 | 1.094 | 3.282 |
| **199** | **2** | **2** | **3650** | 85.4 | 3.4 | 149 | 53.4 | 7.6 | 6.1 | 0.8 | 0.006 | 5 | 100 | 4 | 1.5 | 0.75 | 0.794 | 2.382 |
| **200** | **2** | **2** | **3651** | 99.0 | 4.4 | 149 | 59.8 | 7.6 | 5.5 | 0.5 | 0.002 | 5 | 100 | 3 | 2.0 | 0.40 | 0.498 | 1.494 |
| **201** | **2** | **2** | **3652** | 84.9 | 3.3 | 149 | 51.5 | 6.8 | 6.0 | 1.0 | 0.007 | 6 | 0 | 3 | 3.0 | 0.70 | 0.993 | 2.979 |
| **202** | **2** | **2** | **3653** | 78.9 | 3.6 | 149 | 50.5 | 7.5 | 6.0 | 0.4 | 0.004 | 5 | 0 | 3 | 2.5 | 1.00 | 0.396 | 1.188 |
| **203** | **2** | **2** | **3655** | 90.7 | 4.3 | 149 | 50.8 | 7.6 | 5.6 | 0.7 | 0.007 | 4 | 0 | 3 | 3.0 | 1.00 | 0.693 | 2.079 |
| **204** | **2** | **2** | **3657** | 95.2 | 3.6 | 149 | 53.0 | 7.0 | 5.7 | 0.5 | 0.003 | 4 | 0 | 3 | 3.5 | 0.60 | 0.497 | 1.491 |
| **205** | **2** | **2** | **3658** | 83.3 | 3.3 | 150 | 65.3 | 7.5 | 5.9 | 1.1 | 0.01 | 4 | 100 | 3 | 2.0 | 0.91 | 1.09 | 3.27 |
| **206** | **2** | **2** | **3661** | 99.5 | 4.0 | 147 | 61.4 | 6.7 | 5.8 | 0.4 | 0.007 | 3 | 90 | 2 | 2.5 | 1.75 | 0.393 | 1.179 |
| **207** | **2** | **2** | **3684** | 90.5 | 4.0 | 120 | 63.2 | 7.2 | 4.4 | 1.3 | 0.016 | 2 | 100 | 2 | 1.5 | 1.23 | 1.284 | 3.852 |
| **208** | **2** | **2** | **2** | 67.6 | 2.3 | 121 | 55.3 | 5.9 | 5.6 | 1.1 | 0.012 | 5 | 80 | 3 | 1.0 | 1.09 | 1.088 | 3.264 |
| **209** | **2** | **3** | **3685** | 78.3 | 3.2 | 122 | 69.3 | 6.3 | 5.8 | 0.2 | 0.007 | 6 | 100 | 4 | 4.0 | 3.50 | 0.193 | 0.579 |
| **210** | **2** | **3** | **3686** | 79.2 | 3.1 | 121 | 53.9 | 6.3 | 5.3 | 1.3 | 0.014 | 5 | 0 | 4 | 3.5 | 1.08 | 1.286 | 3.858 |
| **211** | **2** | **3** | **3696** | 82.6 | 2.7 | 148 | #DIV/0! | #DIV/0! | #DIV/0! | 0.5 | 0.004 | 6 | 0 | 4 | 2.5 | 0.80 | 0.496 | 1.488 |
| **212** | **2** | **3** | **3702** | 67.6 | 4.4 | 146 | 62.1 | 6.6 | 5.4 | 0.0 | | 5 | 100 | 4 | 3.0 | #DIV/0! | 0 | 0 |
| **213** | **2** | **3** | **3703** | 93.5 | 3.5 | 147 | 54.9 | 7.9 | 6.0 | 1.1 | 0.006 | 4 | 100 | 3 | 3.5 | 0.55 | 1.094 | 3.282 |
| **214** | **2** | **3** | **3706** | 78.0 | 4.7 | 150 | 49.9 | 8.3 | 5.9 | 0.7 | 0.004 | 5 | 80 | 3 | 2.0 | 0.57 | 0.696 | 2.088 |
| **215** | **2** | **3** | **3710** | 73.2 | 4.1 | 143 | 49.3 | 7.6 | 6.2 | 2.2 | 0.003 | 5 | 100 | 3 | 4.0 | 0.14 | 2.197 | 6.591 |
| **216** | **2** | **3** | **3715** | 91.7 | 4.2 | 143 | 50.2 | 7.4 | 7.7 | 1.1 | 0.005 | 5 | 100 | 2 | 3.0 | 0.45 | 1.095 | 3.285 |
| **217** | **2** | **3** | **3716** | 72.3 | 3.3 | 147 | 52.5 | 8.2 | 6.2 | 1.0 | 0.004 | 6 | 100 | 4 | 1.5 | 0.40 | 0.996 | 2.988 |
| **218** | **2** | **3** | **3717** | 63.3 | 3.9 | 143 | 71.7 | 7.2 | 5.7 | 0.8 | 0.009 | 6 | 0 | 4 | 1.0 | 1.13 | 0.791 | 2.373 |
| **219** | **2** | **3** | **3718** | 87.0 | 6.3 | 146 | 49.3 | 8.3 | 5.9 | 0.6 | 0.005 | 5 | 80 | 3 | 0.5 | 0.83 | 0.595 | 1.785 |
| **220** | **2** | **3** | **3720** | 62.5 | 2.5 | 146 | 57.2 | 7.6 | 6.4 | 1.0 | 0.004 | 5 | 0 | 3 | 1.5 | 0.40 | 0.996 | 2.988 |
| **221** | **2** | **3** | **3735** | 67.7 | 5.5 | 120 | 62.8 | 7.8 | 6.6 | 1.4 | 0.016 | 4 | 0 | 3 | 2.0 | 1.14 | 1.384 | 4.152 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Check # | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| **222** | **2** | **3** | **3736** | 76.8 | 5.2 | 120 | 59.5 | 6.8 | 7.3 | 1.9 | 0.012 | 6 | 0 | 4 | 3.0 | 0.63 | 1.888 | 5.664 |
| **223** | **2** | **3** | **1** | 65.0 | 3.4 | 120 | 62.3 | 7.4 | 5.4 | 0.6 | 0.005 | 5 | 0 | 4 | 2.5 | 0.83 | 0.595 | 1.785 |
| **224** | **2** | **3** | **3739** | 69.3 | 4.3 | 150 | 56.3 | 7.9 | 6.8 | 1.5 | 0.016 | 5 | 0 | 3 | 3.0 | 1.07 | 1.484 | 4.452 |
| **225** | **2** | **3** | **3741** | 68.5 | 3.9 | 151 | 58.8 | 8.7 | 5.9 | 2.2 | 0.009 | 5 | 0 | 3 | 3.5 | 0.41 | 2.191 | 6.573 |
| **226** | **2** | **3** | **3753** | 64.8 | 3.2 | 151 | 63.6 | 7.7 | 6.2 | 1.1 | 0.011 | 5 | 0 | 3 | 2.5 | 1.00 | 1.089 | 3.267 |
| **227** | **2** | **3** | **3765** | 77.1 | 3.3 | 151 | 53.3 | 7.6 | 5.5 | 0.9 | 0.007 | 5 | 100 | 4 | 2.0 | 0.78 | 0.893 | 2.679 |
| **228** | **2** | **3** | **3771** | 62.5 | 5.9 | 150 | 72.2 | 7.0 | 5.4 | 1.8 | 0.016 | 4 | 100 | 2 | 3.5 | 0.89 | 1.784 | 5.352 |
| **229** | **2** | **3** | **3775** | 70.7 | 6.6 | 150 | 62.9 | 7.9 | 6.3 | 4.3 | 0.012 | 6 | 0 | 4 | 3.0 | 0.28 | 4.288 | 12.864 |
| **230** | **2** | **3** | **3783** | 66.6 | 7.6 | 150 | 42.7 | 6.7 | 6.5 | 1.2 | 0.017 | 6 | 100 | 4 | 4.0 | 1.42 | 1.183 | 3.549 |
| **231** | **2** | **3** | **3784** | 74.0 | 5.5 | 147 | 57.2 | 8.3 | 6.6 | 3.0 | 0.028 | 6 | 0 | 4 | 3.0 | 0.93 | 2.972 | 8.916 |
| **232** | **2** | **3** | **3786** | 67.7 | 5.1 | 147 | 53.8 | 9.1 | 5.6 | 3.0 | 0.016 | 6 | 100 | 4 | 3.0 | 0.53 | 2.984 | 8.952 |
| **233** | **2** | **3** | **3790** | 58.5 | 5.3 | 146 | 71.5 | 8.8 | 6.0 | 1.4 | 0.024 | 6 | 0 | 2 | 2.0 | 1.71 | 1.376 | 4.128 |
| **234** | **2** | **3** | **3801** | 77.0 | 4.5 | 147 | 56.1 | 7.0 | 8.3 | 2.5 | 0.009 | 5 | 60 | 4 | 2.0 | 0.36 | 2.491 | 7.473 |
| **235** | **2** | **3** | **3803** | 70.0 | 5.6 | 118 | 72.4 | 7.6 | 6.4 | 0.6 | 0.017 | 5 | 100 | 4 | 2.5 | 2.83 | 0.583 | 1.749 |
| **236** | **2** | **3** | **3806** | 68.7 | 5.0 | 150 | 55.2 | 7.4 | 7.4 | 2.4 | 0.01 | 6 | 60 | 4 | 2.5 | 0.42 | 2.39 | 7.17 |
| **237** | **2** | **3** | **3809** | 65.0 | 5.1 | 150 | 76.8 | 7.4 | 6.2 | 1.6 | 0.008 | 5 | 100 | 4 | 1.5 | 0.50 | 1.592 | 4.776 |
| **238** | **2** | **3** | **3811** | 60.6 | 4.8 | 150 | 65.5 | 7.9 | 7.1 | 2.2 | 0.024 | 5 | 100 | 3 | 1.0 | 1.09 | 2.176 | 6.528 |
| **239** | **2** | **3** | **3813** | 76.0 | 4.3 | 143 | 58.8 | 7.1 | 7.0 | 1.6 | 0.019 | 4 | 100 | 4 | 2.0 | 1.19 | 1.581 | 4.743 |
| **240** | **2** | **3** | **3** | 71.0 | 4.3 | 120 | 84.1 | 8.7 | 6.5 | 2.0 | 0.039 | 6 | 60 | 4 | 2.5 | 1.95 | 1.961 | 5.883 |
| **241** | **2** | **3** | **3816** | 86.0 | 6.7 | 142 | 55.4 | 7.2 | 7.6 | 2.2 | 0.011 | 6 | 0 | 4 | 3.0 | 0.50 | 2.189 | 6.567 |
| **242** | **2** | **3** | **3817** | 65.0 | 6.2 | 141 | 53.3 | 8.0 | 7.2 | 2.6 | 0.014 | 7 | 100 | 3 | 3.0 | 0.54 | 2.586 | 7.758 |
| **243** | **2** | **3** | **3819** | 77.0 | 9.9 | 141 | 54.9 | 7.0 | 5.1 | 2.6 | 0.013 | 5 | 90 | 2 | 3.5 | 0.50 | 2.587 | 7.761 |
| **244** | **2** | **3** | **3824** | 74.2 | 6.4 | 144 | 40.6 | 7.8 | 5.6 | 1.5 | 0.009 | 4 | 0 | 3 | 3.0 | 0.60 | 1.491 | 4.473 |
| **245** | **2** | **3** | **3825** | 98.0 | 8.5 | 120 | 50.1 | 7.9 | 8.7 | 3.4 | 0.057 | 0 | 100 | 5 | 4.0 | 1.68 | 3.343 | 10.029 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ | Traits | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Check # | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| **246** | **2** | **3** | **3826** | 77.0 | 4.0 | 145 | 52.2 | 8.0 | 6.0 | 2.9 | 0.03 | 5 | 0 | 3 | 0.5 | 1.03 | 2.87 | 8.61 |
| **247** | **2** | **3** | **3827** | 89.0 | 6.3 | 145 | 51.3 | 7.1 | 5.7 | 4.8 | 0.034 | 6 | 100 | 4 | 5.0 | 0.71 | 4.766 | 14.298 |
| **248** | **2** | **3** | **3828** | 84.8 | 7.6 | 145 | 78.3 | 8.4 | 8.2 | 3.6 | 0.019 | 5 | 70 | 3 | 2.0 | 0.53 | 3.581 | 10.743 |
| **249** | **2** | **3** | **3904** | 84.3 | 5.5 | 150 | 52.4 | 6.5 | 6.1 | 2.4 | 0.006 | 6 | 100 | 3 | 1.0 | 0.25 | 2.394 | 7.182 |
| **250** | **2** | **3** | **3906** | 87.0 | 7.1 | 118 | 57.2 | 8.9 | 6.7 | 1.9 | 0.018 | 4 | 0 | 3 | 1.0 | 0.95 | 1.882 | 5.646 |
| **251** | **2** | **3** | **3907** | 72.8 | 5.4 | 143 | 70.4 | 9.0 | 5.4 | 2.3 | 0.028 | 6 | 100 | 4 | 0.5 | 1.22 | 2.272 | 6.816 |
| **252** | **2** | **3** | **3911** | 96.1 | 3.2 | 142 | 61.7 | 7.5 | 5.4 | 0.5 | 0.007 | 3 | 100 | 2 | 2.0 | 1.40 | 0.493 | 1.479 |
| **253** | **2** | **3** | **4** | 80.2 | 5.3 | 143 | 63.1 | 6.3 | 5.3 | 2.3 | 0.023 | 4 | 100 | 3 | 2.0 | 1.00 | 2.277 | 6.831 |
| **254** | **2** | **3** | **3912** | 77.2 | 6.3 | 142 | 67.8 | 6.6 | 5.0 | 2.1 | 0.022 | 5 | 100 | 4 | 5.0 | 1.05 | 2.078 | 6.234 |
| **255** | **2** | **3** | **3914** | 86.1 | 6.4 | 118 | 47.5 | 7.8 | 4.5 | 0.2 | 0.019 | 4 | 50 | 3 | 5.5 | 9.50 | 0.181 | 0.543 |
| **256** | **2** | **3** | **3917** | 68.0 | 6.9 | 143 | 56.4 | 6.8 | 5.6 | 3.2 | 0.055 | 5 | 100 | 4 | 5.0 | 1.72 | 3.145 | 9.435 |
| **257** | **2** | **3** | **3918** | 45.0 | 5.1 | 143 | 32.8 | 7.3 | 2.8 | 0.2 | 0.004 | 1 | 50 | 1 | 2.5 | 2.00 | 0.196 | 0.588 |
| **258** | **2** | **3** | **3920** | 83.2 | 5.8 | 92 | 77.0 | 6.3 | 5.5 | 1.8 | 0.027 | 1 | 50 | 1 | 3.0 | 1.50 | 1.773 | 5.319 |
| **259** | **2** | **3** | **3922** | 66.7 | 3.8 | 92 | 32.0 | 5.3 | 3.6 | 0.2 | 0.007 | 5 | 0 | 3 | 4.0 | 3.50 | 0.193 | 0.579 |
| **260** | **2** | **3** | **3925** | 69.0 | 5.9 | 149 | #DIV/0! | #DIV/0! | #DIV/0! | 0.0 | | 6 | 0 | 4 | 1.0 | #DIV/0! | 0 | 0 |
| **261** | **2** | **3** | **3930** | 67.0 | 3.5 | 147 | 60.1 | 6.8 | 3.5 | 1.8 | 0.007 | 6 | 0 | 4 | 2.0 | 0.39 | 1.793 | 5.379 |
| **262** | **2** | **3** | **3932** | 66.2 | 5.2 | 146 | 60.5 | 7.4 | 4.0 | 0.6 | 0.009 | 3 | 100 | 3 | 1.0 | 1.50 | 0.591 | 1.773 |
| **263** | **2** | **4** | **3934** | 62.8 | 6.0 | 147 | 44.6 | 8.1 | 4.3 | 0.9 | 0.006 | 4 | 40 | 4 | 3.0 | 0.67 | 0.894 | 2.682 |
| **264** | **2** | **4** | **3937** | 70.3 | 4.6 | 122 | 54.5 | 6.5 | 5.5 | 1.3 | 0.009 | 5 | 100 | 4 | 2.5 | 0.69 | 1.291 | 3.873 |
| **265** | **2** | **4** | **3939** | 67.4 | 4.1 | 122 | 50.6 | 7.6 | 6.6 | 1.8 | 0.015 | 4 | 100 | 3 | 1.0 | 0.83 | 1.785 | 5.355 |
| **266** | **2** | **4** | **3943** | 60.2 | 5.8 | 132 | 63.7 | 8.0 | 5.1 | 1.6 | 0.008 | 4 | 100 | 3 | 2.5 | 0.50 | 1.592 | 4.776 |
| **267** | **2** | **4** | **3946** | 58.4 | 4.8 | 137 | 55.1 | 6.4 | 4.7 | 0.7 | 0.01 | 5 | 80 | 3 | 1.0 | 1.43 | 0.69 | 2.07 |
| **268** | **2** | **4** | **3948** | 59.8 | 6.5 | 121 | 44.4 | 6.7 | 6.8 | 1.4 | 0.013 | 5 | 100 | 3 | 2.0 | 0.93 | 1.387 | 4.161 |
| **269** | **2** | **4** | **3955** | 55.8 | 5.1 | 123 | 57.3 | 7.9 | 5.1 | 1.7 | 0.012 | 4 | 100 | 2 | 1.5 | 0.71 | 1.688 | 5.064 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Check # | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| 270 | 2 | 4 | 2 | 74.8 | 3.3 | 123 | 60.4 | 7.5 | 4.6 | 0.8 | 0.006 | 5 | 0 | 4 | 1.5 | 0.75 | 0.794 | 2.382 |
| 271 | 2 | 4 | 3958 | 49.3 | 5.2 | 118 | 71.7 | 7.7 | 5.4 | 2.2 | 0.03 | 2 | 100 | 1 | 2.0 | 1.36 | 2.17 | 6.51 |
| 272 | 2 | 4 | 138 | 70.0 | 5.6 | 139 | 67.9 | 7.3 | 6.7 | 0.9 | 0.015 | 2 | 0 | 1 | 0.3 | 1.67 | 0.885 | 2.655 |
| 273 | 2 | 4 | 3962 | 71.9 | 4.6 | 113 | 44.8 | 8.1 | 3.9 | 0.6 | 0.001 | 4 | 80 | 4 | 0.3 | 0.17 | 0.599 | 1.797 |
| 274 | 2 | 4 | 3965 | 75.3 | 7.6 | 118 | 50.4 | 7.2 | 5.2 | 0.8 | 0.007 | 5 | 80 | 5 | 1.5 | 0.88 | 0.793 | 2.379 |
| 275 | 2 | 4 | 3969 | 75.1 | 6.0 | 123 | 73.0 | 6.7 | 4.9 | 1.1 | 0.012 | 4 | 0 | 4 | 1.0 | 1.09 | 1.088 | 3.264 |
| 276 | 2 | 4 | 3972 | 68.5 | 5.5 | 124 | 72.6 | 6.4 | 5.5 | 0.8 | 0.008 | 3 | 100 | 3 | 2.0 | 1.00 | 0.792 | 2.376 |
| 277 | 2 | 4 | 3977 | 67.5 | 5.2 | 113 | 65.9 | 6.4 | 5.2 | 0.9 | 0.012 | 4 | 0 | 4 | 1.0 | 1.33 | 0.888 | 2.664 |
| 278 | 2 | 4 | 4639 | 74.3 | 4.3 | 120 | 48.8 | 6.7 | 6.1 | 0.6 | 0.012 | 4 | 100 | 3 | 0.5 | 2.00 | 0.588 | 1.764 |
| 279 | 2 | 4 | 4732 | 78.4 | 3.3 | 120 | 59.0 | 7.4 | 6.3 | 1.3 | 0.016 | 4 | 100 | 3 | 2.0 | 1.23 | 1.284 | 3.852 |
| 280 | 2 | 4 | 6599 | 75.7 | 5.1 | 121 | 54.8 | 6.8 | 5.7 | 0.9 | 0.017 | 5 | 60 | 3 | 2.0 | 1.89 | 0.883 | 2.649 |
| 281 | 2 | 4 | 6600 | #DIV/0! | 4.0 | 121 | 58.3 | 8.1 | 5.6 | 2.2 | 0.004 | 5 | 100 | 4 | 2.0 | 0.18 | 2.196 | 6.588 |
| 282 | 2 | 4 | 6607 | 72.6 | 6.2 | 121 | 52.4 | 7.1 | 5.1 | 0.5 | 0.003 | 3 | 100 | 2 | 1.5 | 0.60 | 0.497 | 1.491 |
| 283 | 2 | 4 | 6637 | 73.0 | 5.3 | 113 | 51.0 | 7.3 | 6.7 | 0.6 | 0.01 | 3 | 100 | 3 | 1.0 | 1.67 | 0.59 | 1.77 |
| 284 | 2 | 4 | 6714 | 67.7 | 3.5 | 122 | 68.2 | 7.6 | 5.7 | 0.8 | 0.012 | 3 | 80 | 2 | 1.0 | 1.50 | 0.788 | 2.364 |
| 285 | 2 | 4 | 1 | 59.7 | 6.1 | 120 | 65.6 | 7.8 | 5.8 | 0.6 | 0.011 | 3 | 0 | 3 | 2.0 | 1.83 | 0.589 | 1.767 |
| 286 | 2 | 4 | 5061 | 73.4 | 5.9 | 121 | 51.9 | 7.5 | 5.3 | 1.2 | 0.006 | 4 | 100 | 4 | 1.0 | 0.50 | 1.194 | 3.582 |
| 287 | 2 | 4 | 7024 | 76.4 | 3.1 | 122 | 66.6 | 7.1 | 5.9 | 0.6 | 0.012 | 5 | 100 | 3 | 1.0 | 2.00 | 0.588 | 1.764 |
| 288 | 2 | 4 | 40122 | 84.0 | 7.1 | 120 | 61.1 | 7.0 | 5.5 | 0.7 | 0.005 | 4 | 100 | 2 | 2.5 | 0.71 | 0.695 | 2.085 |
| 289 | 2 | 4 | 1459 | 75.4 | 5.1 | 113 | 50.3 | 5.8 | 5.8 | 1.2 | 0.004 | 3 | 100 | 4 | 3.0 | 0.33 | 1.196 | 3.588 |
| 290 | 2 | 4 | 3919 | 60.2 | 4.7 | 120 | 52.6 | 7.6 | 6.5 | 0.9 | 0.002 | 4 | 60 | 3 | 1.0 | 0.22 | 0.898 | 2.694 |
| 291 | 2 | 4 | 5051 | 64.3 | 5.6 | 113 | 56.6 | 7.0 | 5.5 | 1.1 | 0.007 | 4 | 50 | 4 | 1.5 | 0.64 | 1.093 | 3.279 |
| 292 | 2 | 4 | 5052 | 73.6 | 4.8 | 118 | 52.0 | 9.1 | 6.0 | 1.4 | 0.008 | 5 | 100 | 2 | 1.0 | 0.57 | 1.392 | 4.176 |
| 293 | 2 | 4 | 3834 | 77.0 | 7.3 | 120 | 51.0 | 6.2 | 7.6 | 0.9 | 0.004 | 2 | 100 | 2 | 2.0 | 0.44 | 0.896 | 2.688 |

**Annexe II: Attributes of 15 Putative Traits of Drought Tolerance, Cont'd**

| Plot # | E | B | Acc. #/ Check # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| 294 | 2 | 4 | 3839 | 73.8 | 5.5 | 121 | 53.3 | 7.4 | 7.0 | 1.9 | 0.005 | 3 | 0 | 3 | 2.0 | 0.26 | 1.895 | 5.685 |
| 295 | 2 | 4 | 3841 | 64.5 | 3.8 | 122 | 50.9 | 6.5 | 6.5 | 0.4 | 0.002 | 3 | 0 | 2 | 2.0 | 0.50 | 0.398 | 1.194 |
| 296 | 2 | 4 | 3842 | 71.0 | 4.1 | 123 | 44.1 | 7.7 | 7.2 | 0.5 | 0.002 | 3 | 80 | 4 | 1.5 | 0.40 | 0.498 | 1.494 |
| 297 | 2 | 4 | 3844 | 67.8 | 4.9 | 120 | 60.3 | 7.1 | 6.3 | 0.8 | 0.007 | 4 | 100 | 3 | 2.0 | 0.88 | 0.793 | 2.379 |
| 298 | 2 | 4 | 3847 | 69.0 | 3.9 | 121 | 53.2 | 7.0 | 6.2 | 1.2 | 0.002 | 3 | 100 | 3 | 2.0 | 0.17 | 1.198 | 3.594 |
| 299 | 2 | 4 | 3849 | 75.6 | 5.3 | 123 | 49.2 | 7.2 | 5.3 | 0.3 | 0.003 | 4 | 0 | 3 | 2.0 | 1.00 | 0.297 | 0.891 |
| 300 | 2 | 4 | 3853 | 64.2 | 3.1 | 142 | 55.7 | 7.2 | 5.9 | 0.7 | 0.004 | 5 | 90 | 2 | 2.0 | 0.57 | 0.696 | 2.088 |
| 301 | 2 | 4 | 1 | 79.6 | 3.2 | 142 | 75.2 | 6.8 | 5.6 | 0.4 | 0.001 | 3 | 0 | 3 | 3.0 | 0.25 | 0.399 | 1.197 |
| 302 | 2 | 4 | 3854 | 82.9 | #DIV/0! | 122 | 57.2 | 7.9 | 7.0 | 1.7 | 0.006 | 5 | 60 | 0 | 2.0 | 0.35 | 1.694 | 5.082 |
| 303 | 2 | 4 | 3860 | #DIV/0! | 4.4 | 141 | 78.0 | 7.6 | 6.2 | 0.9 | 0.006 | 0 | 0 | 4 | 1.5 | 0.67 | 0.894 | 2.682 |
| 304 | 2 | 4 | 3861 | 73.5 | 3.4 | 121 | 57.1 | 6.8 | 6.4 | 0.5 | 0.002 | 5 | 100 | 3 | 2.0 | 0.40 | 0.498 | 1.494 |
| 305 | 2 | 4 | 3863 | 76.1 | 5.3 | 122 | 72.2 | 4.9 | 6.1 | 0.2 | 0.003 | 4 | 0 | 3 | 1.0 | 1.50 | 0.197 | 0.591 |
| 306 | 2 | 4 | 3864 | 65.3 | 3.9 | 139 | 58.1 | 6.4 | 6.4 | 1.0 | 0.005 | 4 | 90 | 3 | 2.5 | 0.50 | 0.995 | 2.985 |
| 307 | 2 | 4 | 3866 | 82.0 | 2.5 | 147 | 92.1 | 7.0 | 5.8 | 0.4 | 0.002 | 5 | 100 | 2 | 1.0 | 0.50 | 0.398 | 1.194 |
| 308 | 2 | 4 | 3875 | 78.8 | 4.6 | 113 | 48.7 | 7.3 | 4.7 | 0.4 | 0.003 | 3 | 0 | 3 | 1.5 | 0.75 | 0.397 | 1.191 |
| 309 | 2 | 4 | 3879 | 74.0 | 5.7 | 139 | 39.6 | 8.0 | 2.6 | 0.0 | 0.001 | 4 | 100 | 1 | 1.0 | #DIV/0! | -0.001 | -0.003 |
| 310 | 2 | 4 | 3880 | 78.8 | 4.4 | 141 | 59.6 | 8.1 | 6.4 | 0.8 | 0.003 | 2 | 0 | 3 | 1.5 | 0.38 | 0.797 | 2.391 |
| 311 | 2 | 4 | 3884 | 70.0 | 4.0 | 142 | 97.3 | 7.4 | 5.9 | 0.7 | 0.002 | 5 | 60 | 3 | 2.0 | 0.29 | 0.698 | 2.094 |
| 312 | 2 | 4 | 3885 | 69.5 | 3.8 | 142 | 59.2 | 7.5 | 6.9 | 0.6 | 0.004 | 4 | 100 | 3 | 0.5 | 0.67 | 0.596 | 1.788 |
| 313 | 2 | 4 | 3891 | 67.0 | 3.8 | 97 | 76.4 | 7.0 | 5.8 | 0.3 | 0.002 | 4 | 100 | 3 | 0.5 | 0.67 | 0.298 | 0.894 |
| 314 | 2 | 4 | 3895 | 79.0 | 5.9 | 139 | 56.8 | 7.9 | 6.1 | 0.4 | 0.001 | 5 | 100 | 1 | 0.5 | 0.25 | 0.399 | 1.197 |
| 315 | 2 | 4 | 3897 | 80.0 | 4.4 | 106 | 53.5 | 5.9 | 6.4 | 0.1 | 0 | 1 | 100 | 2 | 1.0 | 0.00 | 0.1 | 0.3 |
| 316 | 2 | 4 | 4 | 60.7 | 4.1 | 105 | 59.1 | 7.7 | 6.2 | 1.3 | 0.003 | 3 | 100 | 2 | 1.5 | 0.23 | 1.297 | 3.891 |
| 317 | 2 | 4 | 3899 | #DIV/0! | #DIV/0! | 145 | 52.7 | 8.5 | 6.1 | 0.4 | 0.01 | 3 | 80 | 2 | 2.0 | 2.50 | 0.39 | 1.17 |

**Legend:** #DIV/0! = Missing Value, E = Environment, B = Block

**Annexe III: Check Data and Block Means in the Optimal Experiment**

| Block | Check # | Traits | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| 1 | 1 | 68.8 | 6.0 | 120 | 72.0 | 5.0 | 5.0 | 1.7 | 0.009 | 5 | 100 | 2 | | 0.529 | 1.69 | 5.073 |
| 1 | 3 | 69.0 | 4.0 | 118 | 30.0 | 5.0 | 3.0 | 1.8 | 0.007 | 3 | 60 | 2 | | 0.389 | 1.79 | 5.379 |
| 1 | 4 | 58.0 | 5.0 | 118 | 50.0 | 6.0 | 7.0 | | | 2 | 100 | 2 | | #DIV/0! | 0.00 | 0.000 |
| 1 | 2 | 0.0 | 4.0 | 131 | 64.0 | 6.5 | 5.5 | 2.5 | 0.015 | 6 | 40 | 3 | 2.5 | 0.559 | 2.49 | 7.457 |
| **Block 1 Mean** | | **65.3** | **4.8** | **121.8** | **54.0** | **5.6** | **5.1** | **2.0** | **0.0** | **3.9** | **75.0** | **2.3** | **2.5** | **0.5** | **1.5** | **4.5** |
| 2 | 4 | | 4.0 | 118 | 62.0 | 5.0 | 6.0 | 2.0 | 0.003 | 5 | 100 | 1 | 1.0 | 0.150 | 2.00 | 5.991 |
| 2 | 3 | | 8.0 | 137 | 83.0 | 4.0 | 6.0 | 2.4 | 0.027 | 3 | 60 | 2 | 0.5 | 1.125 | 2.37 | 7.119 |
| 2 | 2 | | 2.0 | 144 | 75.0 | 7.0 | 7.0 | 3.1 | 0.020 | 7 | 80 | 3 | 3.0 | 0.645 | 3.08 | 9.240 |
| 2 | 1 | 68.8 | 5.3 | 120 | 77.5 | 5.3 | 5.8 | 2.1 | 0.010 | 4 | 25 | 2 | 1.8 | 0.425 | 2.09 | 6.272 |
| **Block 2 Mean** | | **68.8** | **4.8** | **129.8** | **74.4** | **5.3** | **6.2** | **2.4** | **0.0** | **4.8** | **66.3** | **2.0** | **1.6** | **0.6** | **2.4** | **7.2** |
| 3 | 1 | | 6.0 | 122 | 85.0 | 6.0 | 5.0 | 2.8 | 0.019 | 5 | 0 | | 2.0 | 0.679 | 2.78 | 8.343 |
| 3 | 3 | | 3.0 | 130 | 56.0 | 5.0 | 5.0 | 2.0 | 0.007 | 6 | 60 | | 2.0 | 0.350 | 1.99 | 5.979 |
| 3 | 4 | | 3.0 | 140 | 60.0 | 10.0 | 8.0 | 2.1 | 0.006 | 4 | 100 | | 2.0 | 0.286 | 2.09 | 6.282 |
| 3 | 2 | | 4.0 | 131 | 64.0 | 6.5 | 5.5 | 2.5 | 0.015 | 6 | 40 | 3 | 2.5 | 0.559 | 2.49 | 7.457 |
| **Block 3 Mean** | | | **4.0** | **130.8** | **66.3** | **6.9** | **5.9** | **2.4** | **0.0** | **5.1** | **50.0** | **3.0** | **2.1** | **0.5** | **2.3** | **7.0** |
| 4 | 2 | | 6.0 | 118 | 53.0 | 6.0 | 4.0 | 1.9 | 0.009 | 4 | 0 | | 2.0 | 0.474 | 1.89 | 5.673 |
| 4 | 1 | | 7.0 | 120 | 70.0 | 6.0 | 8.0 | 2.4 | 0.007 | 5 | 0 | | 2.0 | 0.292 | 2.39 | 7.179 |
| 4 | 1 | | 2.0 | 118 | 83.0 | 4.0 | 5.0 | 1.5 | 0.003 | 2 | 0 | | 1.5 | 0.200 | 1.50 | 4.491 |
| 4 | 4 | | 10.0 | 127 | 50.0 | 7.0 | 7.0 | 2.2 | 0.001 | 6 | 100 | | 2.0 | 0.045 | 2.20 | 6.597 |
| **Block 4 Mean** | | | **6.3** | **120.8** | **64.0** | **5.8** | **6.0** | **2.0** | **0.0** | **4.3** | **25.0** | | **1.9** | **0.3** | **2.0** | **6.0** |
| **Grand Mean** | | | **67.1** | **4.98** | **125.8** | **64.7** | | **5.9** | **5.8** | **2.2** | **0** | **4.53** | **54.1** | **2.43** | **2** | **0.475** |

**Annexe IV: Block Data and Check Means in the Optimal Experiment**

| Block | Check. # | Traits | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | G | SGC | BW | T | CW | CGY |
| 1 | 1 | 68.8 | 6.0 | 120.0 | 72.0 | 5.00 | 5.00 | 1.70 | 0.009 | 5.0 | 100.0 | 2.0 | | 0.53 | 1.691 | 5.073 |
| 2 | 1 | 68.8 | 5.3 | 120.0 | 77.5 | 5.25 | 5.75 | 2.10 | 0.010 | 4.3 | 25.0 | 2.0 | 1.8 | 0.42 | 2.091 | 6.272 |
| 3 | 1 | | 6.0 | 122.0 | 85.0 | 6.00 | 5.00 | 2.80 | 0.019 | 5.0 | 0.0 | | 2.0 | 0.68 | 2.781 | 8.343 |
| 4 | 1 | | 7.0 | 120.0 | 70.0 | 6.00 | 8.00 | 2.40 | 0.007 | 5.0 | 0.0 | | 2.0 | 0.29 | 2.393 | 7.179 |
| **Check 1. Mean** | | **68.8** | **6.1** | **120.5** | **76.1** | **5.6** | **5.9** | **2.3** | **0.0** | **4.8** | **31.3** | **2.0** | **1.9** | **0.5** | **2.2** | **6.7** |
| 1 | 2 | 0.0 | 4.0 | 131.0 | 64.0 | 6.50 | 5.50 | 2.50 | 0.015 | 5.5 | 40.0 | 3.0 | 2.5 | 0.56 | 2.486 | 7.457 |
| 2 | 2 | | 2.0 | 144.0 | 75.0 | 7.00 | 7.00 | 3.10 | 0.020 | 7.0 | 80.0 | 3.0 | 3.0 | 0.65 | 3.080 | 9.240 |
| 3 | 2 | | 4.0 | 131.0 | 64.0 | 6.50 | 5.50 | 2.50 | 0.015 | 5.5 | 40.0 | 3.0 | 2.5 | 0.56 | 2.486 | 7.457 |
| 4 | 2 | | 6.0 | 118.0 | 53.0 | 6.00 | 4.00 | 1.90 | 0.009 | 4.0 | 0.0 | | 2.0 | 0.47 | 1.891 | 5.673 |
| **Check 2 Mean** | | | **4.0** | **131.0** | **64.0** | **6.5** | **5.5** | **2.5** | **0.0** | **5.5** | **40.0** | **3.0** | **2.5** | **0.6** | **2.5** | **7.5** |
| 1 | 3 | 69.0 | 4.0 | 118.0 | 30.0 | 5.00 | 3.00 | 1.80 | 0.007 | 3.0 | 60.0 | 2.0 | | 0.39 | 1.793 | 5.379 |
| 2 | 3 | | 8.0 | 137.0 | 83.0 | 4.00 | 6.00 | 2.40 | 0.027 | 3.0 | 60.0 | 2.0 | 0.5 | 1.13 | 2.373 | 7.119 |
| 3 | 3 | | 3.0 | 130.0 | 56.0 | 5.00 | 5.00 | 2.00 | 0.007 | 6.0 | 60.0 | | 2.0 | 0.35 | 1.993 | 5.979 |
| 4 | 1 | | 2.0 | 118.0 | 83.0 | 4.00 | 5.00 | 1.50 | 0.003 | 2.0 | 0.0 | | 1.5 | 0.20 | 1.497 | 4.491 |
| **Check 3 Mean** | | **69.0** | **4.3** | **125.8** | **63.0** | **4.5** | **4.8** | **1.9** | **0.0** | **3.5** | **45.0** | **2.0** | **1.3** | **0.5** | **1.9** | **5.7** |
| 1 | 4 | 58.0 | 5.0 | 118.0 | 50.0 | 6.00 | 7.00 | | | 2.0 | 100.0 | 2.0 | | | 0.000 | 0.000 |
| 2 | 4 | | 4.0 | 118.0 | 62.0 | 5.00 | 6.00 | 2.00 | 0.003 | 5.0 | 100.0 | 1.0 | 1.0 | 0.15 | 1.997 | 5.991 |
| 3 | 4 | | 3.0 | 140.0 | 60.0 | 10.00 | 8.00 | 2.10 | 0.006 | 4.0 | 100.0 | | 2.0 | 0.29 | 2.094 | 6.282 |
| 4 | 4 | | 10.0 | 127.0 | 50.0 | 7.00 | 7.00 | 2.20 | 0.001 | 6.0 | 100.0 | | 2.0 | 0.05 | 2.199 | 6.597 |
| **Check 4 Mean** | | **58.0** | **5.5** | **125.8** | **55.5** | **7.0** | **7.0** | **2.1** | **0.0** | **4.3** | **100.0** | **1.5** | **1.7** | **0.2** | **1.6** | **4.7** |
| **Grand Mean** | | **66.2** | **5.0** | **122.5** | **56.2** | **5.5** | **5.2** | **2.0** | **0.0** | **3.9** | **59.1** | **1.9** | **1.6** | **0.4** | **1.9** | **5.6** |

**Annexe V: Block Effects ($_{rj}$) Under Optimal Conditions**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GY | PDS | SG | BW | T | CW | CGW |
| 1. | 33 | -0.88 | -0.203 | -4 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 2. | 66 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 3. | 101 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 4. | 102 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 5. | 103 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 6. | 106 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 7. | 109 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 8. | 110 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 9. | 111 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 10. | 112 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 11. | 114 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 12. | 115 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 13. | 118 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 14. | 119 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 15. | 120 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 16. | 121 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 17. | 122 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 18. | 123 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 19. | 124 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 20. | 125 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 21. | 126 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 22. | 127 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 23. | 128 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |

**Annexe V: Block Effects ($r_j$) Under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GY | PDS | SG | BW | T | CW | CGW |
| 24. | 129 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 25. | 130 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 26. | 131 | -0.88 | -0.203 | -4 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 27. | 132 | -0.88 | -0.203 | -4 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 28. | 165 | -0.88 | -0.203 | -4 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 29. | 133 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 30. | 137 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 31. | 140 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 32. | 143 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 33. | 144 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 34. | 146 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 35. | 147 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 36. | 148 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 37. | 149 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 38. | 152 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 39. | 153 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 40. | 154 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 41. | 155 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 42. | 156 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 43. | 157 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 44. | 159 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 45. | 162 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 46. | 168 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 47. | 173 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |

**Annexe V: Block Effects ($_{rj}$) Under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GY | PDS | SG | BW | T | CW | CGW |
| 48. | 175 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 49. | 3834 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 50. | 186 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 51. | 187 | -0.88 | -0.2 | -4.000 | -10.66 | -0.266 | -0.672 | -0.2 | -0.00026 | -0.641 | 0.028 | 0.59 | 0.0454 | -0.561 | -0.561 |
| 52. | 190 | 2.65 | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 53. | 194 | 2.65 | -0.141 | 4 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 54. | 195 | 2.65 | -0.141 | 4 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 55. | 197 | 2.65 | -0.141 | 4 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 56. | 198 | 2.65 | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 57. | 199 | 2.65 | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 58. | 200 | 2.65 | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 59. | 203 | 2.65 | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 60. | 208 | 2.65 | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 61. | 209 | 2.65 | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 62. | 211 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 63. | 212 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 64. | 214 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 65. | 216 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 66. | 218 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 67. | 219 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 68. | 220 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 69. | 221 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 70. | 222 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 71. | 223 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |

**Annexe V: Block Effects ($_{rj}$) Under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | | SL | SW | SN | SY | GY | PDS | SG | BW | T | CW | CGW |
| 72. | 224 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 73. | 225 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 74. | 226 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 75. | 227 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 76. | 229 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 77. | 235 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 78. | 238 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 79. | 240 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 80. | 241 | | -0.141 | 4 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 81. | 245 | | -0.141 | 4 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 82. | 246 | | -0.141 | 4 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 83. | 252 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 84. | 254 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 85. | 257 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 86. | 263 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 87. | 266 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 88. | 269 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 89. | 3605 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 90. | 3607 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 91. | 3609 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 92. | 3614 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 93. | 3650 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 94. | 3651 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |
| 95. | 3652 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 | |

**Annexe V: Block Effects ($_{rj}$) Under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GY | PDS | SG | BW | T | CW | CGW |
| 96. | 3653 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 97. | 3655 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 98. | 3657 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 99. | 3658 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 100. | 3661 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 101. | 3684 | | -0.1 | 4.000 | 9.72 | -0.579 | 0.391 | 0.2 | 0.00444 | 0.296 | -0.222 | -0.327 | 0.1391 | 0.332 | 0.332 |
| 102. | 3685 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 103. | 3686 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 104. | 3696 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 105. | 3702 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 106. | 3703 | | -0.953 | 5 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 107. | 3706 | | -0.953 | 5 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 108. | 3710 | | -0.953 | 5 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 109. | 3715 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 110. | 3716 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 111. | 3717 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 112. | 3718 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 113. | 3720 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 114. | 3735 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 115. | 3736 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 116. | 3739 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 117. | 3741 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 118. | 3753 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |

**Annexe V: Block Effects ($r_j$) Under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GY | PDS | SG | BW | T | CW | CGW |
| 119 | 3765 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 120 | 3771 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 121 | 3775 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 122 | 3783 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 123 | 3784 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 124 | 3786 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 125 | 3790 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 126 | 3801 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 127 | 3803 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 128 | 3806 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 129 | 3809 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 130 | 3811 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 131 | 3813 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 132 | 3816 | -0.953 | 5 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 133 | 3817 | -0.953 | 5 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 134 | 3819 | -0.953 | 5 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 135 | 3824 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 136 | 3825 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 137 | 3826 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 138 | 3827 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 139 | 3828 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 140 | 3904 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 141 | 3906 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |
| 142 | 3907 | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 | |

**Annexe V: Block Effects ($r_{ij}$) Under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GY | PDS | SG | BW | T | CW | CGW |
| 143 | 3911 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 144 | 3912 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 145 | 3914 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 146 | 3917 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 147 | 3918 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 148 | 3920 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 149 | 3922 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 150 | 3925 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 151 | 3930 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 152 | 3932 | | -1.0 | 5.000 | 1.59 | 0.984 | 0.078 | 0.15 | 0.00119 | 0.609 | 0.778 | 0.215 | 0.0212 | 0.285 | 0.285 |
| 153 | 3934 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 154 | 3937 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 155 | 3939 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 156 | 3943 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 157 | 3946 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 158 | 3948 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 159 | 3955 | | 1.297 | -5 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 160 | 3958 | | 1.297 | -5 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 161 | 138 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 162 | 3962 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 163 | 3965 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 164 | 3969 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 165 | 3972 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |

**Annexe V: Block Effects ($r_j$) Under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GY | PDS | SG | BW | T | CW | CGW |
| 166 | 3977 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 167 | 4639 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 168 | 4732 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 169 | 6599 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 170 | 6600 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 171 | 6607 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 172 | 6637 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 173 | 6714 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 174 | 5061 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 175 | 7024 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 176 | 40122 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 177 | 1459 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 178 | 3919 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 179 | 5051 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 180 | 5052 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 181 | 3834 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 182 | 3839 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 183 | 3841 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 184 | 3842 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 185 | 3844 | | 1.297 | -5 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 186 | 3847 | | 1.297 | -5 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 187 | 3849 | | 1.297 | -5 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 188 | 3853 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |

**Annexe V: Block Effects ($r_j$) Under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PH | | NPT | DTF | SL | SW | SN | SY | GY | PDS | SG | BW | T | CW | CGW |
| 189 | 3854 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 190 | 3860 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 191 | 3861 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 192 | 3863 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 193 | 3864 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 194 | 3866 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 195 | 3875 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 196 | 3879 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 197 | 3880 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 198 | 3884 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 199 | 3885 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 200 | 3891 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 201 | 3895 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 202 | 3897 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 203 | 3899 | | 1.3 | -5.000 | -0.66 | -0.141 | 0.203 | -0.2 | -0.00543 | -0.266 | -2.222 | -0.035 | -0.1945 | -0.058 | -0.058 |
| 1. | FMM 175 | -0.88 | 0.3 | -2.250 | -2.60 | 0.109 | -0.047 | -0.1 | -0.00248 | -0.141 | -0.910 | 0.18 | -0.0806 | -0.098 | -0.098 |
| 2. | FMM 165 | #DIV/0! | 0.6 | -0.500 | 4.53 | -0.360 | 0.297 | 0.0 | -0.00050 | 0.015 | -1.222 | -0.18 | -0.0277 | 0.137 | 0.137 |
| 3. | Nyika | -0.88 | -0.4 | 1.667 | 0.22 | 0.046 | -0.068 | 0.1 | 0.00179 | 0.088 | 0.195 | 0.16 | 0.0686 | 0.019 | 0.019 |
| 4. | Senga | -0.88 | 0.0 | 0.000 | 0.00 | -0.001 | 0.000 | 0.0 | -0.00001 | -0.001 | -0.410 | 0.11 | 0.0028 | -0.001 | -0.001 |

**Annexe VI: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Optimal Conditions**

| S. # | Acc. # | Traits | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 1. | 33 | 78.3 | 6.8 | 86 | 49.7 | 5.7 | 9.2 | 0.2 | 0.000 | 3 | 1 | -0.59 | 0.561 |
| 2. | 66 | 62.5 | 5.2 | 143 | 57.5 | 7.2 | 10.3 | 2.0 | 0.009 | 7 | 3 | -0.59 | 2.352 |
| 3. | 101 | 78.7 | 6.2 | 145 | 89.3 | 6.5 | 12.7 | 2.3 | 0.006 | 7 | 3 | -0.59 | 2.655 |
| 4. | 102 | 80.5 | 9.1 | 149 | 75.0 | 6.1 | 11.0 | 0.2 | 0.000 | 7 | 3 | -0.59 | 0.561 |
| 5. | 103 | 58.1 | 6.5 | 102 | 49.5 | 7.8 | 7.0 | 0.7 | 0.001 | 3 | 1 | -0.59 | 1.060 |
| 6. | 106 | 53.3 | 10.4 | 133 | 48.4 | 6.7 | 11.6 | 1.8 | 0.006 | 7 | 4 | -0.59 | 2.155 |
| 7. | 109 | 63.3 | 5.2 | 144 | 66.1 | 8.0 | 9.6 | 1.6 | 0.001 | 7 | 4 | -0.59 | 1.960 |
| 8. | 110 | 59.7 | 7.7 | 137 | 49.7 | 6.9 | 10.9 | 1.2 | 0.004 | 5 | 3 | -0.59 | 1.557 |
| 9. | 111 | 65.7 | 9.0 | 136 | 51.8 | 7.1 | 13.6 | 1.7 | 0.000 | 7 | 4 | -0.59 | 2.061 |
| 10. | 112 | 68.9 | 6. | 135 | 63.5 | 6.3 | 12.7 | 4.2 | 0.000 | 7 | 5 | -0.59 | 4.561 |
| 11. | 114 | 64.7 | 4.5 | 144 | 75.4 | 9.6 | 10.5 | 2.5 | 0.019 | 3 | 2 | -0.59 | 2.842 |
| 12. | 115 | 76.9 | 4.7 | 141 | 74.1 | 8.3 | 11.8 | 4.0 | 0.009 | 7 | 4 | -0.59 | 4.352 |
| 13. | 118 | 57.5 | 4.5 | 139 | 55.1 | 5.7 | 13.6 | 0.2 | 0.000 | 6 | 3 | -0.59 | 0.561 |
| 14. | 119 | 64.9 | 7.1 | 136 | 63.0 | 7.3 | 14.5 | 2.0 | 0.008 | 5 | 3 | -0.59 | 2.353 |
| 15. | 120 | 59.9 | 6.8 | 134 | 54.4 | 8.0 | 11.0 | 2.7 | 0.000 | 6 | 3 | -0.59 | 3.061 |
| 16. | 121 | 60.9 | 6.1 | 122 | 72.4 | 6.2 | 9.8 | 1.6 | 0.002 | 6 | 3 | -0.59 | 1.959 |
| 17. | 122 | 79.3 | 5.3 | 130 | 66.2 | 9.1 | 11.6 | 3.2 | 0.015 | 6 | 3 | -0.59 | 3.546 |
| 18. | 123 | 84.9 | 5.5 | 154 | 77.0 | 8.6 | 9.4 | 2.6 | 0.007 | 6 | 4 | -0.59 | 2.954 |
| 19. | 124 | 77.1 | 6.5 | 174 | 65.9 | 9.5 | 11.8 | 2.8 | 0.004 | 7 | 4 | -0.59 | 3.157 |
| 20. | 125 | 86.5 | 5.8 | 137 | 59.6 | 8.6 | 9.0 | 1.5 | 0.005 | 6 | 4 | -0.59 | 1.856 |

**Annexe VI: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 21. | 126 | 69.1 | 5.6 | 137 | 71.5 | 8.4 | 10.7 | 0.2 | 0.000 | 6 | 4 | -0.59 | 0.561 |
| 22. | 127 | 74.5 | 6.7 | 142 | 72.1 | 8.2 | 10.3 | 2.8 | 0.013 | 7 | 4 | -0.59 | 3.148 |
| 23. | 128 | 84.9 | 5.3 | 133 | 64.4 | 7.2 | 10.1 | 1.8 | 0.009 | 7 | 4 | -0.59 | 2.152 |
| 24. | 130 | 81.3 | 5.5 | 125 | 53.7 | 7.3 | 9.6 | 3.3 | 0 | 7 | 4 | -0.59 | 3.661 |
| 25. | 131 | 89.1 | 5.5 | 127 | 70.8 | 6.9 | 11.9 | 3.9 | 0 | 6 | 4 | -0.59 | 4.261 |
| 26. | 132 | 71.3 | 6.4 | 132 | 64.2 | 6.5 | 12.7 | 0.2 | 0.009 | 7 | 4 | -0.59 | 0.552 |
| 27. | 165 | 63.9 | 5.3 | 129 | 75.9 | 6.5 | 11.9 | 0.2 | 0 | 4 | 2 | -0.59 | 0.561 |
| 28. | 133 | 73.3 | 5.5 | 134 | 63.6 | 8.4 | 12.3 | 2.9 | 0.022 | 4 | 2 | -0.59 | 3.239 |
| 29. | 137 | 75.1 | 6.2 | 124 | 62.5 | 6.9 | 13.8 | 2.4 | 0.007 | 4 | 3 | -0.59 | 2.754 |
| 30. | 140 | 92.3 | 5.8 | 124 | 59.8 | 7.6 | 12.9 | 2.2 | 0 | 4 | 3 | -0.59 | 2.561 |
| 31. | 143 | 107.5 | 6.8 | 142 | 58.7 | 6.6 | 12.5 | 0.2 | 0 | 5 | 4 | -0.59 | 0.561 |
| 32. | 144 | 88.9 | 8 | 135 | 62.7 | 7.7 | 11.6 | 0.2 | 0 | 6 | 0 | -0.59 | 0.561 |
| 33. | 146 | 102.5 | 7.1 | 130 | 78.3 | 8.3 | 11.8 | 0.2 | 0 | 7 | 0 | -0.59 | 0.561 |
| 34. | 147 | 90.9 | 6.5 | 129 | 57.9 | 7.1 | 11.9 | 3.9 | 0 | 6 | 0 | -0.59 | 4.261 |
| 35. | 148 | 85.7 | 8.3 | 126 | 82.5 | 7.5 | 11 | 4.4 | 0.011 | 7 | 0 | -0.59 | 4.75 |
| 36. | 149 | 75.1 | 6.6 | 136 | 62.4 | 8.2 | 11.8 | 0.2 | 0 | 1 | 0 | -0.59 | 0.561 |
| 37. | 152 | 67.7 | 6.9 | 131 | 56.3 | 8 | 9.9 | 1.6 | 0.012 | 6 | 0 | -0.59 | 1.949 |
| 38. | 153 | 0.9 | 5.7 | 129 | #DIV/0! | #DIV/0! | 0.7 | 4.3 | 0 | 7 | 0 | -0.59 | 4.661 |
| 39. | 154 | 83.5 | 5.5 | 155 | 67.7 | 9.1 | 11.8 | 0.2 | 0 | 6 | 0 | -0.59 | 0.561 |
| 40. | 155 | 43.1 | 7.6 | 105 | 32.4 | 7.6 | 4.5 | 1.6 | 0 | 6 | 4 | -0.59 | 1.961 |
| 41. | 156 | 85.9 | 6.9 | 141 | 65.7 | 8.2 | 9.9 | 2.6 | 0.013 | 7 | 4 | -0.59 | 2.948 |
| 42. | 157 | 0.9 | 7 | 145 | 57.1 | 7.4 | 12.1 | 3.9 | 0.021 | 4 | 3 | -0.59 | 4.24 |
| 43. | 159 | 69.9 | 5.9 | 146 | 68.1 | 8.1 | 11 | 2.5 | 0.006 | 3 | 3 | -0.59 | 2.855 |
| 44. | 175 | 72.5 | 6.1 | 134 | 64.3 | 9.2 | 12.1 | 0.2 | 0 | 3 | 3 | -0.59 | 0.561 |

**Annexe VI: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 45. | 3834 | 69.7 | 6.33 | 150 | 66.3 | 9.3 | 12.7 | 0.2 | 0.021 | 3 | 3 | -0.59 | 0.54 |
| 46. | 186 | 65.5 | 4.65 | 155 | 63.4 | 7.4 | 14.9 | 0.2 | 0.008 | 3 | 3 | -0.59 | 0.553 |
| 47. | 187 | 79.9 | 7.43 | 127 | 65.1 | 8.2 | 12.5 | 0.2 | 0.003 | 3 | 2 | -0.59 | 0.558 |
| 48. | 190 | 79.8 | 4.74 | 117 | 42 | 8.6 | 11.4 | -0.2 | 0.015 | 2 | 2 | 0.33 | -0.351 |
| 49. | 194 | 74 | 7.14 | 130 | 50.6 | 8 | 12 | -0.2 | -0.001 | 6 | 3 | 0.33 | -0.335 |
| 50. | 195 | 93.8 | 6.74 | 109 | 45.2 | 7.6 | 10.2 | -0.2 | 0.004 | 5 | 2 | 0.33 | -0.34 |
| 51. | 197 | 80.6 | 7.59 | 116 | 50.7 | 6.5 | 11.2 | -0.2 | -0.004 | 3 | 1 | 0.33 | -0.332 |
| 52. | 198 | 84.8 | 5.54 | 116 | 62.4 | 7.1 | 13.6 | -0.2 | -0.004 | 3 | 2 | 0.33 | -0.332 |
| 53. | 199 | 83 | 7.04 | 114 | 45.5 | 8.7 | 8.7 | -0.2 | -0.004 | 3 | 1 | 0.33 | -0.332 |
| 54. | 200 | 76.2 | 6.74 | 114 | 37.2 | 9.1 | 10.3 | 1.5 | 0.004 | 2 | 1 | 0.33 | 1.36 |
| 55. | 203 | 59 | 6.84 | 134 | 37.6 | 7.4 | 10.3 | -0.2 | 0.005 | 4 | 3 | 0.33 | -0.341 |
| 56. | 208 | 72.6 | 8.94 | 123 | 44 | 8 | 9.2 | 1.8 | -0.004 | 2 | 2 | 0.33 | 1.668 |
| 57. | 209 | 63 | 10.5 | 118 | 35.2 | 7.6 | 10.7 | 0.6 | 0.013 | 2 | 4 | 2.33 | 0.451 |
| 58. | 211 | | 7.24 | 127 | #DIV/0! | #DIV/0! | -0.4 | 2.5 | 0.007 | 5 | 4 | 3.33 | 2.357 |
| 59. | 212 | | 6.84 | 116 | 60.3 | 7.5 | 11.4 | 1.2 | 0.024 | 3 | 2 | 1.33 | 1.04 |
| 60. | 214 | | 4.64 | 132 | 56.6 | 7.9 | 11.4 | 2 | -0.002 | 5 | 3 | 1.33 | 1.866 |
| 61. | 216 | | 7.74 | 131 | 59 | 7.4 | 10.5 | 2.2 | 0.008 | 6 | 4 | 2.33 | 2.056 |
| 62. | 218 | | 6.44 | 129 | 57 | 8.4 | 10.2 | 2.3 | -0.001 | 6 | 4 | 2.33 | 2.165 |
| 63. | 219 | | 7.34 | 117 | 55.9 | 8 | 10 | 2.1 | 0 | 5 | 3 | 1.33 | 1.964 |
| 64. | 220 | | 5.74 | 123 | 44.6 | 7.1 | 9.8 | 1.9 | -0.002 | 3 | 3 | 2.33 | 1.766 |
| 65. | 221 | | 4.14 | 128 | 52.4 | 7.8 | 9.2 | 1.2 | 0.012 | 6 | 4 | 1.83 | 1.052 |
| 66. | 222 | | 8.24 | 117 | 54.7 | 7.6 | 12.7 | 2.2 | 0.016 | 5 | 3 | 2.33 | 2.048 |
| 67. | 223 | | 6.44 | 117 | 51.8 | 8.7 | 9.8 | 1.4 | -0.003 | 1 | 2 | 1.33 | 1.267 |
| 68. | 224 | | 7.6 | 124 | 43.7 | 6.3 | 10.9 | 1.6 | 0.003 | | | | |

**Annexe VI: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 69. | 225 | | 7.3 | 146 | 41.8 | 7.7 | 12 | 2.6 | 0.007 | | | | |
| 70. | 227 | | 7.4 | 127 | 34.9 | 6.9 | 12.3 | 0.2 | 0.011 | | | | |
| 71. | 190 | 79.8 | 4.74 | 117 | 42 | 8.6 | 11.4 | -0.2 | 0.015 | 2 | 2 | 0.33 | -0.351 |
| 72. | 194 | 74 | 7.14 | 130 | 50.6 | 8 | 12 | -0.2 | -0.001 | 6 | 3 | 0.33 | -0.335 |
| 73. | 229 | | 6.0 | 125 | 39.2 | 9.3 | 8.3 | 1.8 | 0.022 | | 229 | | 6.0 |
| 74. | 235 | | 7.5 | 137 | 51.4 | 9.4 | 11.6 | 2.1 | 0.007 | | 235 | | 7.5 |
| 75. | 238 | | 6.5 | 135 | 49.7 | 7.4 | 11.8 | 3 | 0.002 | | 238 | | 6.5 |
| 76. | 240 | | 7.3 | 122 | 45.1 | 7.3 | 12.2 | 1.8 | 0.007 | | 240 | | 7.3 |
| 77. | 241 | | 5.1 | 118 | 52.9 | 9.3 | 12.5 | 2.7 | 0.006 | | 241 | | 5.1 |
| 78. | 245 | | 6.3 | 118 | 59.3 | 7.9 | 10.9 | 1.8 | 0.001 | | 245 | | 6.3 |
| 79. | 246 | | 7.4 | 114 | 48.9 | 7.7 | 11.8 | 1.7 | 0.003 | | 246 | | 7.4 |
| 80. | 252 | | 7.7 | 133 | 47.6 | 8.2 | 8.9 | 1.8 | 0.012 | | 252 | | 7.7 |
| 81. | 254 | | 8.6 | 126 | 43.6 | 7.1 | 10 | 1.7 | 0.016 | | 254 | | 8.6 |
| 82. | 257 | | 8.1 | 137 | 58.6 | 8.1 | 10.5 | 3 | 0.002 | | 257 | | 8.1 |
| 83. | 263 | | 6.5 | 138 | 56 | 6.8 | 11.4 | 2.3 | 0.009 | | 263 | | 6.5 |
| 84. | 266 | | 8.0 | 135 | 55.8 | 7.7 | 12.3 | 2 | 0.016 | | 266 | | 8.0 |
| 85. | 269 | | 6.8 | 128 | 58.3 | 8.9 | 12.7 | 3.8 | 0.011 | | 269 | | 6.8 |
| 86. | 3605 | | #DIV/0! | 134 | 56.8 | 9.2 | 10.7 | 0.9 | 0.04 | | 3605 | | #DIV/0! |
| 87. | 3607 | | #DIV/0! | 135 | 49 | 8.4 | 12.3 | 4 | 0.019 | | 3607 | | #DIV/0! |
| 88. | 3609 | | 8.4 | 138 | 66.1 | 8.3 | 11.1 | 4.1 | 0.042 | | 3609 | | 8.4 |
| 89. | 3614 | | 4.6 | -4 | 47.9 | 8.2 | 14 | 2.4 | 0.011 | | 3614 | | 4.6 |
| 90. | 3650 | | 5.3 | 147 | 55.2 | 8.6 | 11.8 | 3.3 | 0.03 | | 3650 | | 5.3 |
| 91. | 3651 | | 7.5 | 147 | 47.1 | 6.8 | 11.2 | 2.6 | 0.004 | | 3651 | | 7.5 |
| 92. | 3652 | | 4.9 | 144 | 43 | 8.2 | 10.7 | 2.8 | 0.018 | | 3652 | | 4.9 |

**Annexe VI: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 93. | 3655 | | 5.6 | 148 | 55.4 | 9.3 | 11.1 | 2.6 | 0.018 | | 3655 | | 5.6 |
| 94. | 3657 | | 4.5 | 144 | 47.3 | 8.2 | 10.7 | 2.0 | 0.005 | | 3657 | | 4.5 |
| 95. | 3658 | | 3.8 | 144 | 64.4 | 8.5 | 12 | 2.7 | 0.023 | | 3658 | | 3.8 |
| 96. | 3661 | | 5.4 | 142 | 61.8 | 8.6 | 10.5 | 3.5 | 0.022 | | 3661 | | 5.4 |
| 97. | 3684 | | 6.0 | 142 | 66 | 7.3 | 12 | 4.7 | 0.041 | | 3684 | | 6.0 |
| 98. | 3685 | | 5.2 | 139 | 54.5 | 6.5 | 11.7 | 2.3 | 0.005 | | 3685 | | 5.2 |
| 99. | 3686 | | 10.4 | 145 | 59.8 | 6.3 | 10.3 | 3.2 | 0.02 | | 3686 | | 10.4 |
| 100. | 3696 | | 6.7 | 147 | 47.1 | 6.4 | 11.4 | 2.1 | 0.008 | | 3696 | | 6.7 |
| 101. | 3702 | | 8.3 | 141 | 67.7 | 6.3 | 11.4 | 2.4 | 0.016 | | 3702 | | 8.3 |
| 102. | 3703 | | 8.2 | 141 | 49.9 | 6.7 | 10.5 | 1.9 | 0.007 | | 3703 | | 8.2 |
| 103. | 3706 | | 7.8 | 147 | 40.3 | 6.7 | 12.3 | 2.4 | 0.01 | | 3706 | | 7.8 |
| 104. | 3710 | | 7.0 | 147 | 52.8 | 6.6 | 9.9 | 2.2 | -0.001 | | 3710 | | 7.0 |
| 105. | 3715 | | 6.5 | 146 | 40.5 | 7.5 | 10.6 | 2.1 | 0.007 | | 3715 | | 6.5 |
| 106. | 3716 | | 9.1 | 145 | 44.2 | 6.9 | 10.8 | 2.2 | 0.004 | | 3716 | | 9.1 |
| 107. | 3717 | | 7.9 | 144 | 73.9 | 6.2 | 10.3 | 3.1 | 0.033 | | 3717 | | 7.9 |
| 108. | 3718 | | 7.6 | 147 | 49.6 | 6.0 | 13 | 2.0 | 0.004 | | 3718 | | 7.6 |
| 109. | 3720 | | 6.3 | 134 | 53.2 | 6.6 | 10.3 | 2.3 | 0.006 | | 3720 | | 6.3 |
| 110. | 3735 | | 6.0 | 131 | 56.7 | 7.2 | 10.6 | 2.9 | 0.013 | | 3735 | | 6.0 |
| 111. | 3765 | | 7.9 | 131 | 61.4 | 6.9 | 12.1 | 3 | 0.021 | 5 | -1 | 1.79 | 2.593 |
| 112. | 3771 | | #DIV/0! | 117 | 73.6 | 7.4 | 9.6 | 5 | 0.031 | 4 | -1 | -0.22 | 4.483 |
| 113. | 3775 | | #DIV/0! | 125 | 58.3 | 6.4 | 9.4 | 4 | 0.018 | 4 | -1 | 1.79 | 3.696 |
| 114. | 3783 | | 7.0 | 126 | 34.9 | 4.8 | 9 | 2 | 0.003 | 5 | -1 | 0.79 | 1.411 |

**Annexe VI: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 115. | 3784 | | 8.9 | 117 | 54.1 | 6.6 | 11.7 | 3 | 0.011 | 2 | -1 | 3.29 | 2.803 |
| 116. | 3801 | | 7.9 | 140 | 55.7 | 5.8 | 12.8 | 3 | -0.001 | 5 | -1 | 2.79 | 2.915 |
| 117. | 3803 | | 7.3 | 142 | 72.3 | 5.2 | 11.6 | 4 | 0.015 | 3 | -1 | 2.79 | 3.499 |
| 118. | 3806 | | 7.7 | 140 | 52.3 | 5.3 | 12.6 | 4 | 0.001 | 4 | -1 | 1.79 | 3.413 |
| 119. | 3809 | | 5.5 | 134 | 61.5 | 5.8 | 12.8 | 3 | 0.006 | 3 | -1 | 1.79 | 3.108 |
| 120. | 3811 | | 6.0 | 144 | 89.9 | 6.1 | 12.8 | 5 | 0.018 | 4 | -1 | 2.79 | 4.996 |
| 121. | 3813 | | 5.4 | -5 | 63.4 | 7.1 | 12.3 | 7 | 0.011 | 2 | -1 | 2.79 | 6.303 |
| 122. | 3816 | | 6.0 | -5 | 51.8 | 6.9 | 11.7 | 2 | 0.001 | 5 | -1 | 0.79 | 1.913 |
| 123. | 3817 | | 8.5 | 142 | 62.2 | 6 | 11 | 4 | 0.006 | 2 | -1 | 3.29 | 3.508 |
| 124. | 3819 | | 5.1 | 145 | 48.8 | 5.8 | 10.1 | 2 | 0 | 4 | -1 | 3.29 | 1.514 |
| 125. | 3824 | | 4.8 | 145 | 50.9 | 7.1 | 13 | 2 | 0.002 | 4 | -1 | 2.79 | 1.712 |
| 126. | 3825 | | 7.5 | 117 | 56.2 | 6.7 | 13.7 | 2 | 0.016 | 4 | -1 | 2.79 | 2.198 |
| 127. | 3826 | | 7.2 | 137 | 56.9 | 5.7 | 12.6 | 2 | 0.008 | 4 | -1 | 0.79 | 2.206 |
| 128. | 3827 | | 7.1 | 137 | 56.1 | 5.7 | 13.4 | 4 | 0.03 | 3 | -1 | 2.29 | 3.384 |
| 129. | 3828 | | 6.0 | 142 | 57.6 | 7.1 | 13.2 | 4 | 0.02 | 3 | -1 | 4.29 | 3.694 |
| 130. | 3904 | | 6.3 | 140 | 73.6 | 7 | 11.9 | 3 | 0.011 | 4 | -1 | 2.79 | 3.003 |
| 131. | 3906 | | 4.6 | 141 | 51.8 | 6.8 | 9.6 | 2 | 0.006 | 2 | -1 | 0.79 | 1.808 |
| 132. | 3907 | | 7.3 | 132 | 70.6 | 7.5 | 11.6 | 3 | 0.006 | 2 | -1 | 2.79 | 3.208 |
| 133. | 3911 | | 7.4 | 134 | 59 | 6 | 11.9 | 4 | 0.009 | 3 | -1 | 2.79 | 3.405 |
| 134. | 3912 | | 5.0 | 137 | 77 | 6 | 11.7 | 3 | 0.009 | 3 | -1 | 2.79 | 3.105 |
| 135. | 3914 | | 8.1 | 136 | 71 | 7 | 11.6 | 5 | 0.028 | 2 | -1 | 4.29 | 4.586 |
| 136. | 3917 | | 7.9 | 137 | 60 | 7 | 10.3 | 3 | 0.034 | 3 | -1 | 2.79 | 2.88 |
| 137. | 3918 | | 8.1 | 134 | 59 | 7 | 9.9 | 4 | 0.033 | 3 | -1 | 2.79 | 3.881 |
| 138. | 3920 | | 7.5 | 87 | 37 | 6 | 7.7 | 2 | 0.011 | 3 | -1 | 0.29 | 1.803 |

**Annexe VI: Adjusted Accession Attributes of Putative traits of Drought Tolerance under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 139. | 3925 | | 5.4 | 134 | 76 | 7 | 10.1 | 4 | 0.034 | 3 | -1 | 2.79 | 4.08 |
| 140. | 3930 | | #DIV/0! | 132 | 56 | 6 | 8.6 | 4 | 0.025 | 0 | -1 | 3.29 | 3.489 |
| 141. | 3932 | | #DIV/0! | 134 | 77 | 6 | 10.3 | 3 | 0.007 | 0 | -1 | 3.29 | 2.807 |
| 142. | 3934 | | 3.7 | 127 | 49 | 7 | 11.4 | 2 | 0.008 | 6 | 2 | 3.54 | 2.255 |
| 143. | 3937 | | 3.6 | 127 | 51 | 6 | 10.3 | 2 | 0.011 | 5 | 2 | 3.04 | 2.052 |
| 144. | 3939 | | 6.2 | 127 | 48 | 7 | 10.3 | 3 | 0.008 | 5 | 2 | 1.04 | 3.255 |
| 145. | 3943 | | 4.5 | 137 | 74 | 7 | 10.9 | 3 | 0.009 | 5 | 2 | 2.04 | 2.954 |
| 146. | 3946 | | 5.0 | 142 | 77 | 5 | 9.3 | 3 | 0.015 | 5 | 2 | 2.04 | 2.448 |
| 147. | 3948 | | 2.5 | 126 | 47 | 6 | 13.4 | 1 | 0.015 | 5 | 2 | 3.04 | 1.248 |
| 148. | 3955 | | 5.7 | 127 | 68 | 6 | 10.7 | 3 | 0.015 | 4 | 2 | 3.04 | 2.848 |
| 149. | 3958 | | 4.3 | 123 | 80 | 6 | 8 | 3 | 0.012 | 3 | 2 | 2.04 | 2.951 |
| 150. | 138 | | 2.6 | 125 | 68 | 8 | 9.1 | 2 | 0.017 | 3 | 2 | 1.04 | 1.846 |
| 151. | 3962 | | 4.2 | 118 | 48 | 8 | 7.8 | 2 | 0.009 | 3 | 2 | 1.04 | 1.654 |
| 152. | 3965 | | 3.0 | 97 | 52 | 6 | 9.6 | 3 | 0.01 | 4 | 2 | 2.54 | 2.453 |
| 153. | 3969 | | 3.2 | 125 | 76 | 6 | 7.4 | 3 | 0.016 | 1 | 2 | 3.04 | 2.747 |
| 154. | 3972 | | 4.8 | 126 | 74 | 6 | 8.2 | 3 | 0.013 | 1 | 2 | 2.04 | 2.35 |
| 155. | 3977 | | 4.503 | 118 | 68 | 7 | 10.9 | 4 | 0.019 | 2 | 2 | 1.54 | 3.344 |
| 156. | 4639 | | 4.503 | 111 | 62 | 6 | 11.6 | 3 | 0.016 | 2 | 2 | 2.54 | 2.747 |

**Annexe VI: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| **157.** | **4732** | | 5.703 | 125 | 62 | 6 | 9.8 | 2 | 0.013 | 2 | 2 | 1.54 | 2.25 |
| **158.** | **6599** | | 4.503 | 125 | 58 | 8 | 10.5 | 3 | 0.013 | 2 | 2 | 2.04 | 2.85 |
| **159.** | **6600** | | 3.503 | 125 | 49 | 7 | 7.6 | 2 | 0.014 | 3 | 2 | 2.04 | 1.649 |
| **160.** | **6607** | | 3.703 | 127 | 65 | 7 | 11.4 | 3 | 0.007 | 7 | 2 | 2.54 | 2.356 |
| **161.** | **6637** | | 4.803 | 118 | 52 | 8 | 9.6 | 1 | 0.011 | 7 | 2 | 2.04 | 0.452 |
| **162.** | **6714** | | 4.303 | 127 | 62 | 7 | 11.4 | 3 | 0.014 | 2 | 2 | 1.54 | 3.249 |
| **163.** | **5061** | | 4.603 | 126 | 56 | 6 | 9.3 | 2 | 0.016 | 2 | 2 | 1.04 | 2.147 |
| **164.** | **7024** | | 2.903 | 127 | 67 | 8 | 10 | 3 | 0.015 | 5 | 2 | 2.04 | 2.548 |
| **165.** | **40122** | | 2.303 | 123 | 52 | 8 | 9.8 | 3 | 0.009 | 4 | 2 | 2.04 | 2.554 |
| **166.** | **1459** | | 4.103 | 118 | 46 | 8 | 8 | 2 | 0.02 | 5 | 2 | 2.04 | 1.743 |
| **167.** | **3919** | | 5.503 | 123 | 52 | 6 | 11.4 | 2 | 0.008 | 5 | 2 | 2.04 | 1.755 |
| **168.** | **5051** | | 4.003 | 111 | 54 | 7 | 12.5 | 3 | 0.014 | 4 | 2 | 2.04 | 2.349 |
| **169.** | **5052** | | 3.703 | 123 | 51 | 6 | 12.5 | 3 | 0.012 | 2 | 2 | 2.54 | 2.551 |
| **170.** | **3834** | | 3.203 | 127 | 45 | 5 | 13.1 | 2 | 0.008 | 3 | 2 | 2.04 | 1.855 |
| **171.** | **3839** | | 3.003 | 125 | 54 | 7 | 11.3 | 1 | 0.009 | 3 | 2 | 1.54 | 0.754 |
| **172.** | **3841** | | 2.803 | 123 | 57 | 5 | 11.8 | 3 | 0.01 | 3 | 2 | 2.04 | 2.353 |
| **173.** | **3842** | | 3.603 | 123 | 45 | 7 | 12.2 | 2 | 0.006 | 3 | 2 | 2.04 | 1.857 |
| **174.** | **3844** | | 4.403 | 123 | 52 | 6 | 10.9 | 3 | 0.007 | 2 | 2 | 2.54 | 2.656 |
| **175.** | **3847** | | 1.103 | 123 | 52 | 6 | 10.5 | 2 | 0.011 | 2 | 2 | 1.54 | 1.852 |
| **176.** | **3849** | | 4.903 | 127 | 58 | 6 | 10.9 | 3 | 0.007 | 2 | 2 | 0.54 | 2.356 |
| **177.** | **3853** | | 3.103 | 126 | 68 | 7 | 14 | 3 | 0.013 | 2 | 2 | 1.54 | 2.45 |
| **178.** | **3854** | | 4.903 | 123 | 71 | 6.7 | 9.8 | 3 | 0.006 | 3 | 2 | 1.54 | 2.657 |
| **179.** | **3860** | | 3.803 | 125 | 57.2 | 7.3 | 8.3 | 3 | 0.008 | 3 | 2 | 2.54 | 2.955 |

**Annexe VI: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Optimal Conditions, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| **180.** | **3861** | | 3.203 | 142 | 60.9 | 7.2 | 12.2 | 3 | 0.008 | 3 | 2 | 3.04 | 2.955 |
| **181.** | **3863** | | 5.803 | 144 | 57.6 | 6.6 | 10.5 | 3 | 0.006 | 3 | 2 | 3.04 | 2.357 |
| **182.** | **3864** | | 4.503 | 146 | 70.6 | 6.6 | 9.1 | 4 | 0.01 | 3 | 2 | 2.04 | 3.553 |
| **183.** | **3866** | | 5.103 | 147 | 57.6 | 6.7 | 10.3 | 3 | 0.01 | 2 | 2 | 1.04 | 2.353 |
| **184.** | **3875** | | 2.803 | 118 | 94.1 | 7.5 | 11.3 | 3 | 0.006 | 3 | 2 | 1.54 | 3.057 |
| **185.** | **3879** | | 6.803 | 134 | 53.2 | 6.8 | 10.5 | 2 | 0.007 | 4 | 2 | 2.54 | 2.256 |
| **186.** | **3880** | | 2.803 | 123 | 50.4 | 6.5 | 10.5 | 3 | 0.008 | 4 | 2 | 3.04 | 2.355 |
| **187.** | **3884** | | 5.503 | 144 | 61.1 | 6.9 | 10.5 | 3 | 0.007 | 3 | 2 | 1.54 | 2.956 |
| **188.** | **3885** | | 3.303 | 128 | 97.2 | 6.7 | 12 | 3 | 0.007 | 4 | 2 | 2.04 | 2.356 |
| **189.** | **3891** | | 3.803 | 102 | 105 | 6.7 | 11.3 | 3 | 0.006 | 4 | 2 | 2.04 | 2.957 |
| **190.** | **3895** | | 3.603 | 127 | 72.3 | 6.5 | 9.8 | 2 | 0.006 | 4 | 2 | 3.54 | 2.257 |
| **191.** | **3897** | | 1.703 | 128 | 47.9 | 6.6 | 10.3 | 2 | 0.007 | 2 | 2 | 2.04 | 1.856 |
| **192.** | **3899** | | 4.603 | 130 | 51 | 6.2 | 9.4 | 3 | 0.006 | 5 | 2 | 3.04 | 3.057 |
| **193.** | **FMM 175** | **69.7** | **4.7687** | **124.0** | **82.03** | **6.63** | **10.97** | **2.3** | **0.0097** | **4.3** | **2.0** | **0.997** | **2.0860** |
| **194.** | **FMM 165** | **#DIV/0!** | **4.1500** | **131.5** | **81.15** | **7.10** | **10.55** | **2.5** | **0.0150** | **4.0** | **2.0** | **2.040** | **3.3745** |
| **195.** | **Nyika** | **69.9** | **6.9333** | **126.7** | **72.50** | **6.97** | **10.47** | **2.1** | **0.0120** | **4.5** | **1.3** | **0.600** | **3.9207** |
| **196.** | **Senga** | **58.9** | **4.8108** | **125.8** | **60.73** | **6.60** | **11.45** | **1.5** | **0.0025** | **4.3** | **1.0** | **1.143** | **1.5730** |
| SEd for comparing differences between | | | | | | | | | | | | | |
| 2 checks | | 9 | 1.6447 | 5.79 | 9.41 | 0.8 | 0.90000 | 0.00 | 0.00427 | 1.020 | 0.3000 | 0.383 | 0.4104 |
| 2 acc. in same block | | 11.6 | 18.8000 | 1.50 | 1.81 | 1.0 | 0.00855 | 2.05 | 0.50000 | 0.767 | 0.8209 | | |
| 2 acc. in diff. Blocks | | 20 | 3.6776 | 12.90 | 21.00 | 1.7 | 2.02000 | 1.00 | 0.00955 | 2.290 | 0.6000 | 0.857 | 0.9177 |
| Acc. & check means | | 16 | 2.9074 | 10.20 | 16.60 | 1.4 | 1.60000 | 0.00 | 0.00755 | 1.810 | 0.4000 | 0.678 | 0.7255 |

#DIV/0! = Missing Value

**Annexe VII: Check Data and Block Means in the Stressed Experiment**

| Block | Check | Traits | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW | CGY |
| 1 | 1 | 79.8 | 1.6 | | 83.2 | 7.5 | 6.0 | 0.5 | 0.006 | 3.0 | 3.0 | 0.5 | 0.494 | 1.482 |
| 1 | 3 | 58.7 | 5.3 | 118.0 | 59.3 | 6.5 | 5.0 | 0.3 | 0.003 | 3.0 | 3.0 | 2.5 | 0.297 | 0.891 |
| 1 | 4 | 69.3 | 5.7 | 120.0 | 61.0 | 9.3 | 5.7 | 1.5 | 0.028 | 2.0 | 1.0 | 3.5 | 1.472 | 4.416 |
| 1 | 2 | 71.2 | 2.8 | 122.0 | 57.9 | 6.7 | 5.1 | 1.0 | 0.009 | 5.0 | 3.5 | 1.3 | 0.941 | 2.823 |
| **Block Mean** | | **69.8** | **3.9** | **120.0** | **65.3** | **7.5** | **5.5** | **0.8** | **0.0** | **3.3** | **2.6** | **1.9** | **0.8** | **2.4** |
| 2 | 4 | 87.6 | 5.3 | 147.0 | 53.3 | 7.6 | 5.4 | 2.3 | 0.005 | 3.0 | 3.0 | 3.0 | 2.295 | 6.885 |
| 2 | 3 | 91.4 | 5.0 | 143.0 | 66.3 | 7.8 | 6.3 | 1.9 | 0.009 | 4.0 | 3.0 | 3.0 | 1.891 | 5.673 |
| 2 | 2 | 67.6 | 2.3 | 121.0 | 55.3 | 5.9 | 5.6 | 1.1 | 0.012 | 5.0 | 3.0 | 1.0 | 1.088 | 3.264 |
| 2 | 1 | 71.0 | 3.6 | 127.3 | 71.6 | 7.4 | 5.7 | 0.5 | 0.006 | 3.5 | 3.3 | 2.0 | 0.519 | 1.558 |
| **Block Mean** | | **79.4** | **4.0** | **134.6** | **61.6** | **7.2** | **5.8** | **1.5** | **0.0** | **3.9** | **3.1** | **2.3** | **1.4** | **4.3** |
| 3 | 1 | 65.0 | 3.4 | 120.0 | 62.3 | 7.4 | 5.4 | 0.6 | 0.005 | 5.0 | 4.0 | 2.5 | 0.595 | 1.785 |
| 3 | 3 | 71.0 | 4.3 | 120.0 | 84.1 | 8.7 | 6.5 | 2.0 | 0.039 | 6.0 | 4.0 | 2.5 | 1.961 | 5.883 |
| 3 | 4 | 80.2 | 5.3 | 143.0 | 63.1 | 6.3 | 5.3 | 2.3 | 0.023 | 4.0 | 3.0 | 2.0 | 2.277 | 6.831 |
| 3 | 2 | 71.2 | 2.8 | 122.0 | 57.9 | 6.7 | 5.1 | 1.0 | 0.009 | 5.0 | 3.5 | 1.3 | 0.941 | 2.823 |
| **Block Mean** | | **71.9** | **4.0** | **126.3** | **66.8** | **7.3** | **5.6** | **1.5** | **0.0** | **5.0** | **3.6** | **2.1** | **1.4** | **4.3** |
| 4 | 2 | 74.8 | 3.3 | 123.0 | 60.4 | 7.5 | 4.6 | 0.8 | 0.006 | 5.0 | 4.0 | 1.5 | 0.794 | 2.382 |
| 4 | 1 | 59.7 | 6.1 | 120.0 | 65.6 | 7.8 | 5.8 | 0.6 | 0.011 | 3.0 | 3.0 | 2.0 | 0.589 | 1.767 |
| 4 | 3 | 79.6 | 3.2 | 142.0 | 75.2 | 6.8 | 5.6 | 0.4 | 0.001 | 3.0 | 3.0 | 3.0 | 0.399 | 1.197 |
| 4 | 4 | 60.7 | 4.1 | 105.0 | 59.1 | 7.7 | 6.2 | 1.3 | 0.003 | 3.0 | 2.0 | 1.5 | 1.297 | 3.891 |
| **Block Mean** | | **68.7** | **4.2** | **122.5** | **65.1** | **7.5** | **5.6** | **0.8** | **0.0** | **3.5** | **3.0** | **2.0** | **0.8** | **2.3** |

**Annexe VIII: Block Data and Check Means in the Stressed Experiment**

| Block | Check | Traits | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW | CGY |
| 1 | 1 | 79.8 | 1.6 | | 83.2 | 7.5 | 6 | 0.5 | 0.006 | 3 | 3 | 0.5 | 0.494 | 1.482 |
| 2 | 1 | 71 | 3.58 | 127.3 | 71.6 | 7.4 | 5.7 | 0.5 | 0.0058 | 3.5 | 3.3 | 2 | 0.5193 | 1.5578 |
| 3 | 1 | 65 | 3.4 | 120 | 62.3 | 7.4 | 5.4 | 0.6 | 0.005 | 5 | 4 | 2.5 | 0.595 | 1.785 |
| 4 | 1 | 59.7 | 6.1 | 120 | 65.6 | 7.8 | 5.8 | 0.6 | 0.011 | 3 | 3 | 2 | 0.589 | 1.767 |
| **Check Mean** | | **68.9** | **3.67** | **122.4** | **70.7** | **7.5** | **5.7** | **0.6** | **0.0069** | **3.63** | **3.3** | **1.75** | **0.5493** | **1.6479** |
| 1 | 2 | 71.2 | 2.8 | 122 | 57.9 | 6.7 | 5.1 | 1 | 0.009 | 5 | 3.5 | 1.25 | 0.941 | 2.823 |
| 2 | 2 | 67.6 | 2.3 | 121 | 55.3 | 5.9 | 5.6 | 1.1 | 0.012 | 5 | 3 | 1 | 1.088 | 3.264 |
| 3 | 2 | 71.2 | 2.8 | 122 | 57.9 | 6.7 | 5.1 | 1 | 0.009 | 5 | 3.5 | 1.25 | 0.941 | 2.823 |
| 4 | 2 | 74.8 | 3.3 | 123 | 60.4 | 7.5 | 4.6 | 0.8 | 0.006 | 5 | 4 | 1.5 | 0.794 | 2.382 |
| **Check Mean** | | **71.2** | **2.8** | **122** | **57.9** | **6.7** | **5.1** | **1** | **0.009** | **5** | **3.5** | **1.25** | **0.941** | **2.823** |
| 1 | 3 | 58.7 | 5.3 | 118 | 59.3 | 6.5 | 5 | 0.3 | 0.003 | 3 | 3 | 2.5 | 0.297 | 0.891 |
| 2 | 3 | 91.4 | 5 | 143 | 66.3 | 7.8 | 6.3 | 1.9 | 0.009 | 4 | 3 | 3 | 1.891 | 5.673 |
| 3 | 3 | 71 | 4.3 | 120 | 84.1 | 8.7 | 6.5 | 2 | 0.039 | 6 | 4 | 2.5 | 1.961 | 5.883 |
| 4 | 3 | 79.6 | 3.2 | 142 | 75.2 | 6.8 | 5.6 | 0.4 | 0.001 | 3 | 3 | 3 | 0.399 | 1.197 |
| **Check Mean** | | **75.2** | **4.45** | **130.8** | **71.2** | **7.5** | **5.9** | **1.2** | **0.013** | **4** | **3.3** | **2.75** | **1.137** | **3.411** |
| 1 | 4 | 69.3 | 5.7 | 120 | 61 | 9.3 | 5.7 | 1.5 | 0.028 | 2 | 1 | 3.5 | 1.472 | 4.416 |
| 2 | 4 | 87.6 | 5.3 | 147 | 53.3 | 7.6 | 5.4 | 2.3 | 0.005 | 3 | 3 | 3 | 2.295 | 6.885 |
| 3 | 4 | 80.2 | 5.3 | 143 | 63.1 | 6.3 | 5.3 | 2.3 | 0.023 | 4 | 3 | 2 | 2.277 | 6.831 |
| 4 | 4 | 60.7 | 4.1 | 105 | 59.1 | 7.7 | 6.2 | 1.3 | 0.003 | 3 | 2 | 1.5 | 1.297 | 3.891 |
| **Acc. Mean** | | **74.5** | **5.1** | **128.8** | **59.1** | **7.7** | **5.7** | **1.9** | **0.0148** | **3** | **2.3** | **2.5** | **1.8353** | **5.5058** |
| **Grand Mean** | | **72.4** | **4** | **126** | **64.7** | **7.3** | **5.6** | **1.1** | **0.0109** | **3.91** | **3.1** | **2.06** | **1.1156** | **3.3469** |

**Annexe IX: Block Effects (*rj*) under Stress**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | T | CW | CGW |
| 1. | 33 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 2. | 66 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 3. | 101 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 4. | 102 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 5. | 103 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 6. | 106 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 7. | 109 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 8. | 110 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 9. | 111 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 10. | 112 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 11. | 114 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 12. | 115 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 13. | 118 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 14. | 119 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 15. | 120 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 16. | 121 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 17. | 122 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 18. | 123 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 19. | 124 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 20. | 125 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 21. | 126 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 22. | 127 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |
| 23. | 128 | -3 | -0.155 | -6.2 | 0.62 | 0.2 | -0.13 | -0 | 0.001 | -0.7 | -0 | -0.124 | 0.2741 | -0.315 | -0.944 |

**Annexe IX: Block Effects (*rj*) under Stress, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | T | CW | CGW |
| **24.** | **129** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **25.** | **130** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **26.** | **131** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **27.** | **132** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **28.** | **165** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **29.** | **133** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **30.** | **137** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **31.** | **140** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **32.** | **143** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **33.** | **144** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **34.** | **146** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **35.** | **147** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **36.** | **148** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **37.** | **149** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **38.** | **152** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **39.** | **153** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **40.** | **154** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **41.** | **155** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **42.** | **156** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **43.** | **157** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **44.** | **159** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **45.** | **162** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| **46.** | **168** | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |

**Annexe IX: Block Effects (*rj*) under Stress, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | T | CW | CGW |
| 47 | 173 | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | -0.94 |
| 48 | 175 | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | 175 |
| 49 | 3834 | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | 3834 |
| 50 | 186 | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | 186 |
| 51 | 187 | -3 | -0.155 | -6.2 | 0.6 | 0 | -0.1 | -0 | 0 | -0.7 | -0 | -0.12 | 0.274 | -0.32 | 187 |
| 52 | 190 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 53 | 194 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 54 | 195 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 55 | 197 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 56 | 198 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 57 | 199 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 58 | 200 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 59 | 203 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 60 | 208 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 61 | 209 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 62 | 211 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 63 | 212 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 64 | 214 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 65 | 216 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 66 | 218 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 67 | 219 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 68 | 220 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 69 | 221 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |

**Annexe IX: Block Effects (*rj*) under Stress, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | T | CW | CGW |
| 70 | 222 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 71 | 223 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 72 | 224 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 73 | 225 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 74 | 226 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 75 | 227 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 76 | 229 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 77 | 235 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 78 | 238 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 79 | 240 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 80 | 241 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 81 | 245 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 82 | 246 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 83 | 252 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 84 | 254 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 85 | 257 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 86 | 263 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 87 | 266 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 88 | 269 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 89 | 3605 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 90 | 3607 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 91 | 3609 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 92 | 3614 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 93 | 3650 | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |

**Annexe IX: Block Effects (*rj*) under Stress, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | T | CW | CGW |
| 94. | 3651 | | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 95. | 3652 | | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 96. | 3653 | | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 97. | 3655 | | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 98. | 3657 | | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 99. | 3658 | | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 100. | 3661 | | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 101. | 3684 | | 7 | 0.039 | 8.4 | -3.1 | -0 | 0.17 | 0 | -0 | -0 | -0 | 0.188 | -0.27 | 0.332 | 0.998 |
| 102. | 3685 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 103. | 3686 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 104. | 3696 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 105. | 3702 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 106. | 3703 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 107. | 3706 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 108. | 3710 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 109. | 3715 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 110. | 3716 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 111. | 3717 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 112. | 3718 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 113. | 3720 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 114. | 3735 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 115. | 3736 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 116. | 3739 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 117. | 3741 | | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |

**Annexe IX: Block Effects (*rj*) under Stress, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | T | CW | CGW |
| 118. | 3753 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 119. | 3765 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 120. | 3771 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 121. | 3775 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 122. | 3783 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 123. | 3784 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 124. | 3786 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 125. | 3790 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 126. | 3801 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 127. | 3803 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 128. | 3806 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 129. | 3809 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 130. | 3811 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 131. | 3813 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 132. | 3816 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 133. | 3817 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 134. | 3819 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 135. | 3824 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 136. | 3825 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 137. | 3826 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 138. | 3827 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 139. | 3828 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 140. | 3904 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |

**Annexe IX: Block Effects (*rj*) under Stress, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | T | CW | CGW |
| 141. | 3906 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 142. | 3907 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 143. | 3911 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 144. | 3912 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 145. | 3914 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 146. | 3917 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 147. | 3918 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 148. | 3920 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 149. | 3922 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 150. | 3925 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 151. | 3930 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 152. | 3932 | -1 | -0.055 | 0 | 2.12 | -0 | -0.01 | 0 | 0.01 | 1.09 | 0.5 | 0 | 0.2031 | 0.328 | 0.983 |
| 153. | 3934 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 154. | 3937 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 155. | 3939 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 156. | 3943 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 157. | 3946 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 158. | 3948 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 159. | 3955 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 160. | 3958 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 161. | 138 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 162. | 3962 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 163. | 3965 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | -1.038 |

**Annexe IX: Block Effects (*rj*) under Stress, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | T | CW | CGW |
| 164. | 3969 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 165. | 3972 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 166. | 3977 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 167. | 4639 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 168. | 4732 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 169. | 6599 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 170. | 6600 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 171. | 6607 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 172. | 6637 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 173. | 6714 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 174. | 5061 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 175. | 7024 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 176. | 40122 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 177. | 1459 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 178. | 3919 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 179. | 5051 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 180. | 5052 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |
| 181. | 3834 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | -0 | -0.01 | -0.4 | -0 | -0.062 | -0.207 | -0.346 | $-1.0_{38}$ |

**Annexe IX: Block Effects (*rj*) under Stress, Cont'd**

| S. # | Acc. # | Traits | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | T | CW | CGW |
| 182 | 3839 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | 0 | -0.01 | -0.4 | 0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 183 | 3841 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | 0 | -0.01 | -0.4 | 0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 184 | 3842 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | 0 | -0.01 | -0.4 | 0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 185 | 3844 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | 0 | -0.01 | -0.4 | 0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 186 | 3847 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | 0 | -0.01 | -0.4 | 0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 187 | 3849 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | 0 | -0.01 | -0.4 | 0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 188 | 3853 | -4 | 0.17 | -3.7 | 0.36 | 0.1 | -0.03 | 0 | -0.01 | -0.4 | 0 | -0.062 | -0.207 | -0.346 | -1.038 |
| 189 | 3854 | -3.7 | 0.17 | -3.7 | 0.36 | 0.109 | -0.031 | -0.352 | -0.0057 | -0.406 | -0.078 | -0.062 | -0.2069 | -0.3463 | -1.038 |
| 190 | 3860 | -3.7 | 0.17 | -3.7 | 0.36 | 0.109 | -0.031 | -0.352 | -0.0057 | -0.406 | -0.078 | -0.062 | -0.2069 | -0.3463 | -1.038 |
| 191 | 3861 | -3.7 | 0.17 | -3.7 | 0.36 | 0.109 | -0.031 | -0.352 | -0.0057 | -0.406 | -0.078 | -0.062 | -0.2069 | -0.3463 | -1.038 |
| 192 | 3863 | -3.7 | 0.17 | -3.7 | 0.36 | 0.109 | -0.031 | -0.352 | -0.0057 | -0.406 | -0.078 | -0.062 | -0.2069 | -0.3463 | -1.038 |
| 193 | 3864 | -3.7 | 0.17 | -3.7 | 0.36 | 0.109 | -0.031 | -0.352 | -0.0057 | -0.406 | -0.078 | -0.062 | -0.2069 | -0.3463 | -1.038 |
| 194 | 3866 | -3.7 | 0.17 | -3.7 | 0.36 | 0.109 | -0.031 | -0.352 | -0.0057 | -0.406 | -0.078 | -0.062 | -0.2069 | -0.3463 | -1.038 |
| 195 | 3875 | -3.7 | 0.17 | -3.7 | 0.36 | 0.109 | -0.031 | -0.352 | -0.0057 | -0.406 | -0.078 | -0.062 | -0.2069 | -0.3463 | -1.038 |
| 196 | 3879 | -3.7 | 0.17 | -3.7 | 0.36 | 0.109 | -0.031 | -0.352 | -0.0057 | -0.406 | -0.078 | -0.062 | -0.2069 | -0.3463 | -1.038 |
| 197 | 3880 | -3.7 | 0.17 | -3.7 | 0.36 | 0.109 | -0.031 | -0.352 | -0.0057 | -0.406 | -0.078 | -0.062 | -0.2069 | -0.3463 | -1.038 |
| 198 | 3884 | -3.7 | 0.17 | -3.7 | 0.36 | 0.109 | -0.031 | -0.352 | -0.0057 | -0.406 | -0.078 | -0.062 | -0.2069 | -0.3463 | -1.038 |
| 199 | 3885 | -3.7 | 0.17 | -3.7 | 0.36 | 0.109 | -0.031 | -0.352 | -0.0057 | -0.406 | -0.078 | -0.062 | -0.2069 | -0.3463 | -1.038 |
| 200 | 3891 | -3.7 | 0.17 | -3.7 | 0.36 | 0.109 | -0.031 | -0.352 | -0.0057 | -0.406 | -0.078 | -0.062 | -0.2069 | -0.3463 | -1.038 |
| 20 | FMM 175 | -3 | 0.0325 | -3.4 | 0.865 | 0.1 | -0.05 | 0 | -0.0023 | -0.1 | 0.1 | -0.062 | 0.0158 | -0.1698 | -0.5093 |
| 20 | FMM 165 | 1.5 | 0.1045 | 2.35 | -1.37 | 0.05 | 0.07 | 0 | -0.005 | -0.2 | 0.3 | 0.063 | -0.2385 | -0.007 | -0.007 |
| 20 | Nyika | 1 | -0.057 | 0.73 | -0.12 | 0.07 | 0.01 | 0 | 0.0037 | 0.13 | 0.2 | 0.0213 | 0.06907 | 0.115 | 0.3457 |
| 20 | Senga | -0.2 | -0.0002 | -0.38 | -0.005 | 0.03 | 0.007 | -0.1 | 0.0011 | 0 | 0.1 | 0.0015 | 0.00005 | -0.0016 | 0.0007 |

**Annexe X: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Stress**

| S. # | Acc. # | Trait | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 1. | 33 | 66.5 | 6.9 | 88.2 | 50.4 | 7.3 | 5.5 | 0.715 | 0.007 | 2.7 | 2.5 | 0.424 | 0.707 |
| 2. | 66 | 91.9 | 4.8 | 153.2 | 52.7 | 8.4 | 5.8 | 1.915 | 0.019 | 3.7 | 3.5 | 1.124 | 1.895 |
| 3. | 101 | 70.5 | 5.3 | 156.2 | 54.0 | 7.2 | 5.6 | 0.815 | 0.009 | 3.7 | 2.5 | 0.624 | 0.805 |
| 4. | 102 | 79.7 | 6.9 | 155.2 | 55.7 | 6.6 | 5.1 | 0.915 | 0.006 | 3.7 | 2.5 | 2.124 | 0.908 |
| 5. | 103 | 73.7 | 3.6 | 104.2 | 36.0 | 8.4 | 3.3 | 0.315 | 0.001 | 2.7 | 1.5 | 0.624 | 0.313 |
| 6. | 106 | 78.4 | 10.6 | 124.2 | 38.9 | 6.0 | 6.4 | 1.015 | 0.010 | 3.7 | 3.5 | 2.124 | 1.004 |
| 7. | 109 | 75.5 | 7.0 | 145.2 | 44.3 | 7.2 | 5.9 | 1.115 | 0.006 | 3.7 | 3.5 | 2.124 | 1.108 |
| 8. | 110 | 86.7 | 6.3 | 124.2 | 54.6 | 5.4 | 5.6 | 0.815 | 0.003 | 4.7 | 3.5 | 2.124 | 0.811 |
| 9. | 111 | 78.3 | 8.3 | 149.2 | #DIV/0! | #DIV/0! | #DIV/0! | 0.315 | -0.001 | 3.7 | 2.5 | 2.124 | 0.315 |
| 10. | 112 | 79.6 | 7.5 | 153.2 | 41.6 | 9.1 | 5.3 | 2.515 | -0.001 | 3.7 | 2.5 | 2.124 | 2.515 |
| 11. | 114 | 79.2 | 5.4 | 124.2 | 53.0 | 5.7 | 6.7 | 1.015 | 0.006 | 2.7 | 1.5 | 1.124 | 1.008 |
| 12. | 115 | 73.6 | 6.6 | 124.2 | 66.0 | 6.7 | 5.3 | 1.315 | 0.010 | 3.7 | 3.5 | 1.624 | 1.304 |
| 13. | 118 | 64.6 | 7.2 | 155.2 | 51.2 | 7.0 | 6.6 | 1.515 | 0.006 | 4.7 | 3.5 | 2.124 | 1.508 |
| 14. | 119 | 82.4 | 7.3 | 154.2 | 60.4 | 6.5 | 7.3 | 0.915 | 0.008 | 3.7 | 3.5 | 2.124 | 0.906 |
| 15. | 120 | 68.5 | 7.1 | 156.2 | 44.2 | 8.3 | 5.9 | 1.015 | 0.009 | 3.7 | 3.5 | 2.124 | 1.005 |
| 16. | 121 | 80.7 | 6.6 | 124.2 | 57.7 | 6.6 | 7.2 | 0.515 | 0.005 | 2.7 | 2.5 | 2.624 | 0.509 |
| 17. | 122 | 79.1 | 7.2 | 153.2 | 50.2 | 9.3 | 6.3 | 1.315 | 0.011 | 2.7 | 2.5 | 1.624 | 1.303 |
| 18. | 123 | 83.7 | 7.6 | 155.2 | 61.7 | 7.5 | 6.4 | 1.315 | 0.008 | 4.7 | 4.5 | 3.124 | 1.306 |
| 19. | 124 | 64.4 | 6.5 | 154.2 | 52.1 | 9.0 | 6.7 | 1.815 | 0.024 | 3.7 | 3.5 | 2.124 | 1.79 |
| 20. | 125 | 57.2 | 6.5 | 155.2 | 52.6 | 7.8 | 5.9 | 1.215 | 0.008 | 4.7 | 3.5 | 3.624 | 1.206 |
| 21. | 126 | 62.7 | 7.2 | 156.2 | 52.9 | 7.6 | 5.1 | 1.115 | 0.008 | 3.7 | 3.5 | 2.624 | 1.106 |

**Annexe X: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Stress, Cont'd**

| S. # | Acc. # | Trait | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 22. | 127 | 73.7 | 3.4 | 149.2 | 59.4 | 7.2 | 5.8 | 1.615 | 0.011 | 5.7 | 4.5 | 4.124 | 1.603 |
| 23. | 128 | 76.5 | 6.4 | 153.2 | 69.3 | 7.3 | 6.6 | 1.115 | 0.011 | 4.7 | 3.5 | 3.124 | 1.103 |
| 24. | 129 | 65.9 | 4.4 | 152.2 | 57.8 | 6.6 | 6.4 | 1.015 | 0.001 | 3.7 | 2.5 | 0.124 | 1.013 |
| 25. | 130 | 79.9 | 4.9 | 152.2 | 57.6 | 7.5 | 6.3 | 1.615 | 0.015 | 5.7 | 3.5 | 0.124 | 1.599 |
| 26. | 131 | 84.9 | 9.1 | 153.2 | 73.6 | 7.3 | 6.0 | 2.315 | 0.015 | 4.7 | 2.5 | 0.124 | 2.299 |
| 27. | 132 | 73.7 | 6.5 | 154.2 | 63.1 | 7.2 | 6.9 | 1.315 | 0.009 | 4.7 | 2.5 | 0.124 | 1.305 |
| 28. | 165 | 63.7 | 6.0 | 124.2 | 67.3 | 7.0 | 5.8 | 0.815 | 0.009 | 3.7 | 2.5 | 0.124 | 0.805 |
| 29. | 133 | 64.2 | 6.1 | 156.2 | #DIV/0! | #DIV/0! | #DIV/0! | 0.315 | -0.001 | 4.7 | 3.5 | 0.124 | 0.315 |
| 30. | 137 | 50.5 | 9.2 | 150.2 | #DIV/0! | #DIV/0! | #DIV/0! | 0.315 | -0.001 | 3.7 | 2.5 | 3.124 | 0.315 |
| 31. | 140 | #DIV/0! | #DIV/0! | 153.2 | #DIV/0! | #DIV/0! | #DIV/0! | 0.315 | -0.001 | 3.7 | 2.5 | 2.624 | 0.315 |
| 32. | 143 | 79.5 | 6.5 | 153.2 | 59.7 | 9.0 | 4.8 | 2.115 | 0.013 | 0.7 | 3.5 | 2.124 | 2.101 |
| 33. | 144 | 70.0 | 6.3 | 152.2 | 51.3 | 7.4 | 7.1 | 2.015 | 0.009 | 4.7 | 3.5 | 3.124 | 2.005 |
| 34. | 146 | 62.7 | 5.7 | 156.2 | 60.6 | 7.8 | 5.6 | 1.515 | 0.011 | 4.7 | 2.5 | 3.124 | 1.503 |
| 35. | 147 | 58.0 | 6.8 | 156.2 | 46.1 | 8.1 | 6.0 | 2.215 | 0.034 | 4.7 | 2.5 | 0.624 | 2.18 |
| 36. | 148 | 68.8 | 7.2 | 156.2 | 58.3 | 7.7 | 5.5 | 1.515 | 0.011 | 3.7 | 3.5 | 1.124 | 1.503 |
| 37. | 149 | 64.3 | 5.1 | 151.2 | 30.9 | 6.8 | 4.1 | 0.115 | 0.001 | 4.7 | 1.5 | 3.624 | 0.113 |
| 38. | 152 | 65.4 | 6.5 | 152.2 | 50.0 | 7.5 | 6.4 | 1.615 | 0.003 | 2.7 | 3.5 | 3.124 | 1.611 |
| 39. | 153 | 70.0 | 6.5 | 152.2 | 45.0 | 7.3 | 8.1 | 2.515 | 0.021 | 3.7 | 3.5 | 0.424 | 2.493 |
| 40. | 154 | 82.9 | 7.1 | 155.2 | 52.0 | 8.4 | 7.4 | 3.915 | 0.015 | 4.7 | 4.5 | 4.124 | 3.899 |
| 41. | 155 | 54.7 | 5.3 | 111.2 | 43.6 | 6.6 | 3.3 | 0.115 | 0.000 | 5.7 | 1.5 | 2.124 | 0.114 |
| 42. | 156 | 81.9 | 7.1 | 155.2 | 54.3 | 8.6 | 5.6 | 2.015 | 0.010 | 1.7 | 3.5 | 3.124 | 2.004 |
| 43. | 157 | 63.2 | 6.7 | 153.2 | 43.9 | 8.1 | 6.7 | 2.615 | 0.031 | 4.7 | 2.5 | 3.624 | 2.583 |
| 44. | 159 | 71.9 | 5.1 | 155.2 | 54.6 | 6.5 | 5.3 | 1.815 | 0.017 | 1.7 | 2.5 | 1.124 | 1.797 |
| 45. | 162 | 70.7 | 5.6 | 152.2 | #DIV/0! | #DIV/0! | #DIV/0! | 0.315 | -0.001 | 3.7 | 2.5 | 2.124 | 0.315 |
| 46. | 168 | 90.4 | 4.9 | 152.2 | 56.7 | 7.1 | 6.1 | 3.515 | 0.024 | 3.7 | 2.5 | 1.124 | 3.49 |

**Annexe X: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Stress, Cont'd**

| S. # | Acc. # | Trait | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 47. | 173 | 74.8 | 5.2 | 152.2 | 51.7 | 6.8 | 6.8 | 2.515 | 0.017 | 3.7 | 2.5 | 1.124 | 2.497 |
| 48. | 175 | 62.0 | 4.9 | 156.2 | 51.3 | 7.4 | 6.1 | 1.015 | 0.007 | 3.7 | 2.5 | 2.124 | 1.007 |
| 49. | 3834 | 60.7 | 7.0 | 149.2 | 47.5 | 7.3 | 7.7 | 3.115 | 0.020 | 3.7 | 2.5 | 0.624 | 3.094 |
| 50. | 186 | 73.2 | 5.4 | 148.2 | 49.7 | 7.3 | 5.6 | 2.015 | 0.008 | 3.7 | 3.5 | 2.124 | 2.006 |
| 51. | 187 | 76.7 | 5.7 | 149.2 | 45.4 | 7.4 | 5.5 | 1.815 | 0.003 | 4.7 | 3.5 | 3.124 | 1.811 |
| 52. | 190 | 59.1 | 6.1 | 138.6 | 54.7 | 7.2 | 6.2 | 1.971 | 0.020 | 3.0 | 2.0 | 2.312 | 1.951 |
| 53. | 194 | 78.3 | 4.7 | 111.6 | 56.1 | 7.4 | 5.8 | 1.271 | 0.005 | 3.0 | 3.0 | 2.812 | 1.266 |
| 54. | 195 | 70.0 | 6.7 | 141.6 | 62.0 | 6.1 | 5.4 | 0.071 | 0.009 | 4.0 | 2.0 | 1.812 | 0.062 |
| 55. | 197 | 66.3 | 6.1 | 109.6 | 83.4 | 7.6 | 6.6 | 2.171 | 0.015 | 3.0 | 2.0 | 2.312 | 2.156 |
| 56. | 198 | 69.8 | 7.4 | 140.6 | 58.8 | 7.6 | 5.4 | 1.371 | 0.018 | 3.0 | 2.0 | 2.812 | 1.353 |
| 57. | 199 | 61.0 | 4.8 | 138.6 | 49.0 | 7.1 | 6.6 | 0.871 | 0.019 | 3.0 | 2.0 | 2.312 | 0.852 |
| 58. | 200 | 59.6 | 8.0 | 109.6 | 54.8 | 6.7 | 5.2 | 2.271 | 0.014 | 3.0 | 1.0 | 2.812 | 2.257 |
| 59. | 203 | 57.5 | 6.8 | 109.6 | 51.4 | 6.6 | 5.1 | 2.171 | 0.011 | 2.0 | 3.0 | 3.312 | 2.16 |
| 60. | 208 | 51.8 | 5.3 | 136.6 | #DIV/0! | #DIV/0! | #DIV/0! | -0.329 | 0.003 | 5.0 | 4.0 | -0.188 | -0.332 |
| 61. | 209 | 63.5 | 8.4 | 137.6 | 62.7 | 6.9 | 5.0 | -0.329 | 0.022 | 4.0 | 4.0 | 3.312 | -0.351 |
| 62. | 211 | 61.6 | 5.1 | 111.6 | 63.0 | 7.8 | 4.8 | 5.271 | 0.009 | 5.0 | 3.0 | 3.312 | 5.262 |
| 63. | 212 | 60.6 | 3.9 | 111.6 | 47.1 | 8.3 | 4.4 | 2.971 | 0.015 | 3.0 | 2.0 | 2.812 | 2.956 |
| 64. | 214 | 71.3 | 6.2 | 139.6 | 68.5 | 7.4 | 4.9 | 0.771 | 0.007 | 5.0 | 3.0 | 1.312 | 0.764 |
| 65. | 216 | 75.5 | 6.4 | 140.6 | 58.5 | 8.0 | 6.1 | 6.171 | 0.013 | 4.0 | 3.0 | 3.312 | 6.158 |
| 66. | 218 | 69.1 | 5.6 | 141.6 | 59.9 | 5.7 | 7.1 | 1.171 | 0.007 | 5.0 | 3.0 | 3.312 | 1.164 |
| 67. | 219 | 54.2 | 5.5 | 141.6 | 59.9 | 7.2 | 5.5 | 1.471 | 0.013 | 4.0 | 3.0 | 2.312 | 1.458 |
| 68. | 220 | 72.8 | 4.6 | 140.6 | 58.5 | 8.0 | 5.9 | 2.071 | 0.013 | 4.0 | 3.0 | 2.812 | 2.058 |
| 69. | 221 | 61.7 | 5.3 | 138.6 | 59.0 | 8.8 | 5.7 | 1.971 | 0.007 | 4.0 | 2.0 | 2.312 | 1.964 |
| 70. | 222 | 56.7 | 6.7 | 136.6 | 58.1 | 9.2 | 4.5 | 0.971 | 0.006 | 4.0 | 1.0 | 3.312 | 0.965 |
| 71. | 223 | 43.0 | 5.7 | 109.6 | 41.4 | 6.4 | 3.3 | -0.129 | 0.019 | 3.0 | 3.0 | 2.812 | -0.148 |

**Annexe X: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Stress, Cont'd**

| S. # | Acc. # | Trait | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 72. | 224 | 64.1 | 7.2 | 112.6 | 58.2 | 6.8 | 5.6 | 3.471 | 0.004 | 2.0 | 2.0 | 3.812 | 3.467 |
| 73. | 225 | 63.9 | 4.2 | 109.6 | 62.2 | 7.2 | 5.5 | 1.971 | 0.011 | 4.0 | 1.0 | 1.812 | 1.96 |
| 74. | 226 | 54.4 | 4.5 | 112.6 | 39.1 | 5.4 | 6.3 | -0.029 | 0.008 | 3.0 | 2.0 | 2.312 | -0.037 |
| 75. | 227 | 71.6 | 5.6 | 113.6 | 54.7 | 7.5 | 4.3 | 0.971 | 0.008 | 2.0 | 2.0 | 2.312 | 0.963 |
| 76. | 229 | 84.7 | 5.8 | 111.6 | 72.8 | 8.8 | 5.0 | 1.371 | 0.004 | 3.0 | 3.0 | 2.812 | 1.367 |
| 77. | 235 | 72.6 | 5.1 | 133.6 | 58.2 | 7.0 | 5.4 | 1.271 | 0.012 | 2.0 | 3.0 | 3.312 | 1.259 |
| 78. | 238 | 75.6 | 4.5 | 109.6 | 49.2 | 7.2 | 5.4 | 3.271 | 0.009 | 3.0 | 2.0 | 2.312 | 3.262 |
| 79. | 240 | 63.0 | 5.6 | 109.6 | 75.5 | 7.2 | 5.9 | 0.471 | 0.007 | 3.0 | 2.0 | 0.812 | 0.464 |
| 80. | 241 | 70.3 | 6.1 | 112.6 | 65.4 | 7.7 | 4.6 | 1.071 | 0.010 | 3.0 | 2.0 | 1.312 | 1.061 |
| 81. | 245 | 73.4 | 6.2 | 140.6 | 51.1 | 6.5 | 4.8 | 0.871 | 0.007 | 2.0 | 2.0 | 2.312 | 0.864 |
| 82. | 246 | 67.1 | 4.5 | 141.6 | 56.5 | 7.3 | 5.1 | 1.271 | 0.009 | 3.0 | 3.0 | 2.812 | 1.262 |
| 83. | 252 | 84.4 | 5.0 | 134.6 | 64.9 | 7.0 | 5.6 | 1.571 | 0.005 | 3.0 | 3.0 | 2.812 | 1.566 |
| 84. | 254 | 73.9 | 5.9 | 133.6 | 66.4 | 7.9 | 5.7 | 2.571 | 0.005 | 4.0 | 2.0 | 2.312 | 2.566 |
| 85. | 257 | 69.7 | 3.7 | 113.6 | 91.4 | 8.0 | 6.9 | 1.371 | 0.025 | 3.0 | 3.0 | 2.812 | 1.346 |
| 86. | 263 | 70.7 | 5.2 | 134.6 | 71.9 | 7.7 | 5.7 | 1.471 | 0.008 | 3.0 | 2.0 | 1.812 | 1.463 |
| 87. | 266 | 81.1 | 5.0 | 113.6 | 59.8 | 7.4 | 6.5 | 3.671 | 0.009 | 4.0 | 3.0 | 3.812 | 3.662 |
| 88. | 269 | 81.2 | 4.8 | 140.6 | 61.4 | 8.6 | 5.8 | 3.271 | 0.042 | 4.0 | 0.0 | 3.812 | 3.229 |
| 89. | 3605 | #DIV/0! | #DIV/0! | 138.6 | #DIV/0! | #DIV/0! | #DIV/0! | -0.329 | 0.003 | 2.0 | 1.0 | 3.312 | -0.332 |
| 90. | 3607 | #DIV/0! | #DIV/0! | 137.6 | #DIV/0! | #DIV/0! | #DIV/0! | -0.329 | 0.003 | 4.0 | 3.0 | 3.312 | -0.332 |
| 91. | 3609 | 81.0 | 3.8 | 112.6 | 66.3 | 6.6 | 6.4 | 1.371 | 0.012 | 5.0 | 3.0 | 3.812 | 1.359 |
| 92. | 3614 | 78.3 | 3.9 | 112.6 | 66.9 | 8.1 | 6.8 | 0.771 | 0.009 | 6.0 | 3.0 | 0.812 | 0.762 |
| 93. | 3650 | 78.4 | 3.4 | 140.6 | 56.5 | 7.8 | 5.9 | 0.471 | 0.009 | 5.0 | 4.0 | 1.312 | 0.462 |
| 94. | 3651 | 92.0 | 4.4 | 140.6 | 62.9 | 7.8 | 5.3 | 0.171 | 0.005 | 5.0 | 3.0 | 1.812 | 0.166 |
| 95. | 3652 | 77.9 | 3.3 | 140.6 | 54.6 | 7.0 | 5.8 | 0.671 | 0.010 | 6.0 | 3.0 | 2.812 | 0.661 |

**Annexe X: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Stress, Cont'd**

| S. # | Acc. # | Trait | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 96. | 3653 | 71.9 | 3.561 | 140.6 | 53.6 | 7.7 | 5.8 | 0.071 | 0.007 | 5.0 | 3.0 | 2.312 | 0.064 |
| 97. | 3655 | 83.7 | 4.261 | 140.6 | 53.9 | 7.8 | 5.4 | 0.371 | 0.010 | 4.0 | 3.0 | 2.812 | 0.361 |
| 98. | 3657 | 88.2 | 3.561 | 140.6 | 56.1 | 7.2 | 5.5 | 0.171 | 0.006 | 4.0 | 3.0 | 3.312 | 0.165 |
| 99. | 3658 | 76.3 | 3.261 | 141.6 | 68.4 | 7.7 | 5.7 | 0.771 | 0.013 | 4.0 | 3.0 | 1.812 | 0.758 |
| 100 | 3661 | 92.5 | 3.961 | 138.6 | 64.5 | 6.9 | 5.6 | 0.071 | 0.010 | 3.0 | 2.0 | 2.312 | 0.061 |
| 101 | 3684 | 83.5 | 3.961 | 111.6 | 66.3 | 7.4 | 4.2 | 0.971 | 0.019 | 2.0 | 2.0 | 1.312 | 0.952 |
| 102 | 3685 | 78.9 | 3.255 | 122 | 67.2 | 6.3 | 5.8 | -0.135 | -0.001 | 4.9 | 3.5 | 4 | -0.135 |
| 103 | 3686 | 79.8 | 3.155 | 121 | 51.8 | 6.4 | 5.3 | 0.965 | 0.006 | 3.9 | 3.5 | 3.5 | 0.958 |
| 104 | 3696 | 83.2 | 2.755 | 148 | #DIV/0! | #DIV/0! | #DIV/0! | 0.165 | -0.004 | 4.9 | 3.5 | 2.5 | 0.168 |
| 105 | 3702 | 68.2 | 4.455 | 146 | 60.0 | 6.7 | 5.4 | -0.335 | -0.008 | 3.9 | 3.5 | 3 | -0.328 |
| 106 | 3703 | 94.1 | 3.555 | 147 | 52.8 | 8.0 | 6.0 | 0.765 | -0.002 | 2.9 | 2.5 | 3.5 | 0.766 |
| 107 | 3706 | 78.6 | 4.755 | 150 | 47.8 | 8.4 | 5.9 | 0.365 | -0.004 | 3.9 | 2.5 | 2 | 0.368 |
| 108 | 3710 | 73.8 | 4.155 | 143 | 47.2 | 7.7 | 6.2 | 1.865 | -0.005 | 3.9 | 2.5 | 4 | 1.869 |
| 109 | 3715 | 92.3 | 4.255 | 143 | 48.1 | 7.5 | 7.7 | 0.765 | -0.003 | 3.9 | 1.5 | 3 | 0.767 |
| 110 | 3716 | 72.9 | 3.355 | 147 | 50.4 | 8.3 | 6.2 | 0.665 | -0.004 | 4.9 | 3.5 | 1.5 | 0.668 |
| 111 | 3717 | 63.9 | 3.955 | 143 | 69.6 | 7.3 | 5.7 | 0.465 | 0.001 | 4.9 | 3.5 | 1 | 0.463 |
| 112 | 3718 | 87.6 | 6.355 | 146 | 47.2 | 8.4 | 5.9 | 0.265 | -0.003 | 3.9 | 2.5 | 0.5 | 0.267 |
| 113 | 3720 | 63.1 | 2.555 | 146 | 55.1 | 7.7 | 6.4 | 0.665 | -0.004 | 3.9 | 2.5 | 1.5 | 0.668 |
| 114 | 3735 | 68.3 | 5.555 | 120 | 60.7 | 7.9 | 6.6 | 1.065 | 0.008 | 2.9 | 2.5 | 2 | 1.056 |
| 115 | 3736 | 77.4 | 5.255 | 120 | 57.4 | 6.9 | 7.3 | 1.565 | 0.004 | 4.9 | 3.5 | 3 | 1.56 |
| 116 | 3739 | 69.9 | 4.355 | 150 | 54.2 | 8.0 | 6.8 | 1.165 | 0.008 | 3.9 | 2.5 | 3 | 1.156 |
| 117 | 3741 | 69.1 | 3.955 | 151 | 56.7 | 8.8 | 5.9 | 1.865 | 0.001 | 3.9 | 2.5 | 3.5 | 1.863 |
| 118 | 3753 | 65.4 | 3.255 | 151 | 61.5 | 7.8 | 6.2 | 0.765 | 0.003 | 3.9 | 2.5 | 2.5 | 0.761 |

**Annexe X: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Stress, Cont'd**

| S. # | Acc. # | Trait | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 119. | 3765 | 77.7 | 3.355 | 151 | 51.2 | 7.7 | 5.5 | 0.565 | -0.001 | 3.9 | 3.5 | 2 | 0.565 |
| 120. | 3771 | 63.1 | 5.955 | 150 | 70.1 | 7.1 | 5.4 | 1.465 | 0.008 | 2.9 | 1.5 | 3.5 | 1.456 |
| 121. | 3775 | 71.3 | 6.655 | 150 | 60.8 | 8.0 | 6.3 | 3.965 | 0.004 | 4.9 | 3.5 | 3 | 3.96 |
| 122. | 3783 | 67.2 | 7.655 | 150 | 40.6 | 6.8 | 6.5 | 0.865 | 0.009 | 4.9 | 3.5 | 4 | 0.855 |
| 123. | 3784 | 74.6 | 5.555 | 147 | 55.1 | 8.4 | 6.6 | 2.665 | 0.020 | 4.9 | 3.5 | 3 | 2.644 |
| 124. | 3786 | 68.3 | 5.155 | 147 | 51.7 | 9.2 | 5.6 | 2.665 | 0.008 | 4.9 | 3.5 | 3 | 2.656 |
| 125. | 3790 | 59.1 | 5.355 | 146 | 69.4 | 8.9 | 6.0 | 1.065 | 0.016 | 4.9 | 1.5 | 2 | 1.048 |
| 126. | 3801 | 77.6 | 4.555 | 147 | 54.0 | 7.1 | 8.3 | 2.165 | 0.001 | 3.9 | 3.5 | 2 | 2.163 |
| 127. | 3803 | 70.6 | 5.655 | 118 | 70.3 | 7.7 | 6.4 | 0.265 | 0.009 | 3.9 | 3.5 | 2.5 | 0.255 |
| 128. | 3806 | 69.3 | 5.055 | 150 | 53.1 | 7.5 | 7.4 | 2.065 | 0.002 | 4.9 | 3.5 | 2.5 | 2.062 |
| 129. | 3809 | 65.6 | 5.155 | 150 | 74.7 | 7.5 | 6.2 | 1.265 | 0.000 | 3.9 | 3.5 | 1.5 | 1.264 |
| 130. | 3811 | 61.2 | 4.855 | 150 | 63.4 | 8.0 | 7.1 | 1.865 | 0.016 | 3.9 | 2.5 | 1 | 1.848 |
| 131. | 3813 | 76.6 | 4.355 | 143 | 56.7 | 7.2 | 7.0 | 1.265 | 0.011 | 2.9 | 3.5 | 2 | 1.253 |
| 132. | 3816 | 86.6 | 6.755 | 142 | 53.3 | 7.3 | 7.6 | 1.865 | 0.003 | 4.9 | 3.5 | 3 | 1.861 |
| 133. | 3817 | 65.6 | 6.255 | 141 | 51.2 | 8.1 | 7.2 | 2.265 | 0.006 | 5.9 | 2.5 | 3 | 2.258 |
| 134. | 3819 | 77.6 | 9.955 | 141 | 52.8 | 7.1 | 5.1 | 2.265 | 0.005 | 3.9 | 1.5 | 3.5 | 2.259 |
| 135. | 3824 | 74.8 | 6.455 | 144 | 38.5 | 7.9 | 5.6 | 1.165 | 0.001 | 2.9 | 2.5 | 3 | 1.163 |
| 136. | 3825 | 98.6 | 8.555 | 120 | 48.0 | 8.0 | 8.7 | 3.065 | 0.049 | -1.1 | 4.5 | 4 | 3.015 |
| 137. | 3826 | 77.6 | 4.055 | 145 | 50.1 | 8.1 | 6.0 | 2.565 | 0.022 | 3.9 | 2.5 | 0.5 | 2.542 |
| 138. | 3827 | 89.6 | 6.355 | 145 | 49.2 | 7.2 | 5.7 | 4.465 | 0.026 | 4.9 | 3.5 | 5 | 4.438 |
| 139. | 3828 | 85.4 | 7.655 | 145 | 76.2 | 8.5 | 8.2 | 3.265 | 0.011 | 3.9 | 2.5 | 2 | 3.253 |
| 140. | 3904 | 84.9 | 5.555 | 150 | 50.3 | 6.6 | 6.1 | 2.065 | -0.002 | 4.9 | 2.5 | 1 | 2.066 |
| 141. | 3906 | 87.6 | 7.155 | 118 | 55.1 | 9.0 | 6.7 | 1.565 | 0.010 | 2.9 | 2.5 | 1 | 1.554 |
| 142. | 3907 | 73.4 | 5.455 | 143 | 68.3 | 9.1 | 5.4 | 1.965 | 0.020 | 4.9 | 3.5 | 0.5 | 1.944 |

**Annexe X: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Stress, Cont'd**

| S. # | Acc. # | Trait | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 143. | 3911 | 96.7 | 3.255 | 142 | 59.6 | 7.6 | 5.4 | 0.165 | -0.001 | 1.9 | 1.5 | 2 | 0.165 |
| 144. | 3912 | 77.8 | 6.355 | 142 | 65.7 | 6.7 | 5.0 | 1.765 | 0.014 | 3.9 | 3.5 | 5 | 1.75 |
| 145. | 3914 | 86.7 | 6.455 | 118 | 45.4 | 7.9 | 4.5 | -0.135 | 0.011 | 2.9 | 2.5 | 5.5 | -0.147 |
| 146. | 3917 | 68.6 | 6.955 | 143 | 54.3 | 6.9 | 5.6 | 2.865 | 0.047 | 3.9 | 3.5 | 5 | 2.817 |
| 147. | 3918 | 45.6 | 5.155 | 143 | 30.7 | 7.4 | 2.8 | -0.135 | -0.004 | -0.1 | 0.5 | 2.5 | -0.132 |
| 148. | 3920 | 83.8 | 5.855 | 92 | 74.9 | 6.4 | 5.5 | 1.465 | 0.019 | -0.1 | 0.5 | 3 | 1.445 |
| 149. | 3922 | 67.3 | 3.855 | 92 | 29.9 | 5.4 | 3.6 | -0.135 | -0.001 | 3.9 | 2.5 | 4 | -0.135 |
| 150. | 3925 | 69.6 | 5.955 | 149 | #DIV/0! | #DIV/0! | #DIV/0! | -0.335 | -0.008 | 4.9 | 3.5 | 1 | -0.328 |
| 151. | 3930 | 67.6 | 3.555 | 147 | 58.0 | 6.9 | 3.5 | 1.465 | -0.001 | 4.9 | 3.5 | 2 | 1.465 |
| 152. | 3932 | 66.8 | 5.255 | 146 | 58.4 | 7.5 | 4.0 | 0.265 | 0.001 | 1.9 | 2.5 | 1 | 0.263 |
| 153. | 3934 | 66.5 | 5.83 | 150.7 | 44.2 | 8.0 | 4.3 | 1.252 | 0.012 | 4.4 | 4.1 | 3.062 | 1.2403 |
| 154. | 3937 | 74.0 | 4.43 | 125.7 | 54.1 | 6.4 | 5.5 | 1.652 | 0.015 | 5.4 | 4.1 | 2.562 | 1.6373 |
| 155. | 3939 | 71.1 | 3.93 | 125.7 | 50.2 | 7.5 | 6.6 | 2.152 | 0.021 | 4.4 | 3.1 | 1.062 | 2.1313 |
| 156. | 3943 | 63.9 | 5.63 | 135.7 | 63.3 | 7.9 | 5.1 | 1.952 | 0.014 | 4.4 | 3.1 | 2.562 | 1.9383 |
| 157. | 3946 | 62.1 | 4.63 | 140.7 | 54.7 | 6.3 | 4.7 | 1.052 | 0.016 | 5.4 | 3.1 | 1.062 | 1.0363 |
| 158. | 3948 | 63.5 | 6.33 | 124.7 | 44.0 | 6.6 | 6.8 | 1.752 | 0.019 | 5.4 | 3.1 | 2.062 | 1.7333 |
| 159. | 3955 | 59.5 | 4.93 | 126.7 | 56.9 | 7.8 | 5.1 | 2.052 | 0.018 | 4.4 | 2.1 | 1.562 | 2.0343 |
| 160. | 3958 | 53.0 | 5.03 | 121.7 | 71.3 | 7.6 | 5.4 | 2.552 | 0.036 | 2.4 | 1.1 | 2.062 | 2.5163 |
| 161. | 138 | 73.7 | 5.43 | 142.7 | 67.5 | 7.2 | 6.7 | 1.252 | 0.021 | 2.4 | 1.1 | 0.362 | 1.2313 |
| 162. | 3962 | 75.6 | 4.43 | 116.7 | 44.4 | 8.0 | 3.9 | 0.952 | 0.007 | 4.4 | 4.1 | 0.362 | 0.9453 |
| 163. | 3965 | 79.0 | 7.43 | 121.7 | 50.0 | 7.1 | 5.2 | 1.152 | 0.013 | 5.4 | 5.1 | 1.562 | 1.1393 |
| 164. | 3969 | 78.8 | 5.83 | 126.7 | 72.6 | 6.6 | 4.9 | 1.452 | 0.018 | 4.4 | 4.1 | 1.062 | 1.4343 |
| 165. | 3972 | 72.2 | 5.33 | 127.7 | 72.2 | 6.3 | 5.5 | 1.152 | 0.014 | 3.4 | 3.1 | 2.062 | 1.1383 |

**Annexe X: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Stress, Cont'd**

| S. # | Acc. # | Trait | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 166. | 3977 | 71.2 | 5.03 | 116.7 | 65.5 | 6.3 | 5.2 | 1.252 | 0.018 | 4.4 | 4.1 | 1.062 | 1.2343 |
| 167. | 4639 | 78.0 | 4.13 | 123.7 | 48.4 | 6.6 | 6.1 | 0.952 | 0.018 | 4.4 | 3.1 | 0.562 | 0.9343 |
| 168. | 4732 | 82.1 | 3.13 | 123.7 | 58.6 | 7.3 | 6.3 | 1.652 | 0.022 | 4.4 | 3.1 | 2.062 | 1.6303 |
| 169. | 6599 | 79.4 | 4.93 | 124.7 | 54.4 | 6.7 | 5.7 | 1.252 | 0.023 | 5.4 | 3.1 | 2.062 | 1.2293 |
| 170. | 6600 | #DIV/0! | 3.83 | 124.7 | 57.9 | 8.0 | 5.6 | 2.552 | 0.010 | 5.4 | 4.1 | 2.062 | 2.5423 |
| 171. | 6607 | 76.3 | 6.03 | 124.7 | 52.0 | 7.0 | 5.1 | 0.852 | 0.009 | 3.4 | 2.1 | 1.562 | 0.8433 |
| 172. | 6637 | 76.7 | 5.13 | 116.7 | 50.6 | 7.2 | 6.7 | 0.952 | 0.016 | 3.4 | 3.1 | 1.062 | 0.9363 |
| 173. | 6714 | 71.4 | 3.33 | 125.7 | 67.8 | 7.5 | 5.7 | 1.152 | 0.018 | 3.4 | 2.1 | 1.062 | 1.1343 |
| 174. | 5061 | 77.1 | 5.73 | 124.7 | 51.5 | 7.4 | 5.3 | 1.552 | 0.012 | 4.4 | 4.1 | 1.062 | 1.5403 |
| 175. | 7024 | 80.1 | 2.93 | 125.7 | 66.2 | 7.0 | 5.9 | 0.952 | 0.018 | 5.4 | 3.1 | 1.062 | 0.9343 |
| 176. | 40122 | 87.7 | 6.93 | 123.7 | 60.7 | 6.9 | 5.5 | 1.052 | 0.011 | 4.4 | 2.1 | 2.562 | 1.0413 |
| 177. | 1459 | 79.1 | 4.93 | 116.7 | 49.9 | 5.7 | 5.8 | 1.552 | 0.010 | 3.4 | 4.1 | 3.062 | 1.5423 |
| 178. | 3919 | 63.9 | 4.53 | 123.7 | 52.2 | 7.5 | 6.5 | 1.252 | 0.008 | 4.4 | 3.1 | 1.062 | 1.2443 |
| 179. | 5051 | 68.0 | 5.43 | 116.7 | 56.2 | 6.9 | 5.5 | 1.452 | 0.013 | 4.4 | 4.1 | 1.562 | 1.4393 |
| 180. | 5052 | 77.3 | 4.63 | 121.7 | 51.6 | 9.0 | 6.0 | 1.752 | 0.014 | 5.4 | 2.1 | 1.062 | 1.7383 |
| 181. | 3834 | 80.7 | 7.13 | 123.7 | 50.6 | 6.1 | 7.6 | 1.252 | 0.010 | 2.4 | 2.1 | 2.062 | 1.2423 |
| 182. | 3839 | 77.5 | 5.33 | 124.7 | 52.9 | 7.3 | 7.0 | 2.252 | 0.011 | 3.4 | 3.1 | 2.062 | 2.2413 |
| 183. | 3841 | 68.2 | 3.63 | 125.7 | 50.5 | 6.4 | 6.5 | 0.752 | 0.008 | 3.4 | 2.1 | 2.062 | 0.7443 |
| 184. | 3842 | 74.7 | 3.93 | 126.7 | 43.7 | 7.6 | 7.2 | 0.852 | 0.008 | 3.4 | 4.1 | 1.562 | 0.8443 |
| 185. | 3844 | 71.5 | 4.73 | 123.7 | 59.9 | 7.0 | 6.3 | 1.152 | 0.013 | 4.4 | 3.1 | 2.062 | 1.1393 |
| 186. | 3847 | 72.7 | 3.73 | 124.7 | 52.8 | 6.9 | 6.2 | 1.552 | 0.008 | 3.4 | 3.1 | 2.062 | 1.5443 |
| 187. | 3849 | 79.3 | 5.13 | 126.7 | 48.8 | 7.1 | 5.3 | 0.652 | 0.009 | 4.4 | 3.1 | 2.062 | 0.6433 |
| 188. | 3853 | 67.9 | 2.93 | 145.7 | 55.3 | 7.1 | 5.9 | 1.052 | 0.010 | 5.4 | 2.1 | 2.062 | 1.0423 |

**Annexe X: Adjusted Accession Attributes of Putative Traits of Drought Tolerance under Stress, Cont'd**

| S. # | Acc. # | Trait | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PH | NPT | DTF | SL | SW | SN | SY | GW | PDS | SGC | BW | CW |
| 189. | 3854 | 86.6 | #DIV/0! | 125.7 | 56.8 | 7.8 | 7.0 | 2.052 | 0.012 | 5.4 | 0.1 | 2.062 | 2.0403 |
| 190. | 3860 | #DIV/0! | 4.23 | 144.7 | 77.6 | 7.5 | 6.2 | 1.252 | 0.012 | 0.4 | 4.1 | 1.562 | 1.2403 |
| 191. | 3861 | 77.2 | 3.23 | 124.7 | 56.7 | 6.7 | 6.4 | 0.852 | 0.008 | 5.4 | 3.1 | 2.062 | 0.8443 |
| 205. | 3863 | 79.8 | 5.13 | 125.7 | 71.8 | 4.8 | 6.1 | 0.552 | 0.009 | 4.4 | 3.1 | 1.062 | 0.5433 |
| 206. | 3864 | 69.0 | 3.73 | 142.7 | 57.7 | 6.3 | 6.4 | 1.352 | 0.011 | 4.4 | 3.1 | 2.562 | 1.3413 |
| 207. | 3866 | 85.7 | 2.33 | 150.7 | 91.7 | 6.9 | 5.8 | 0.752 | 0.008 | 5.4 | 2.1 | 1.062 | 0.7443 |
| 208. | 3875 | 82.5 | 4.43 | 116.7 | 48.3 | 7.2 | 4.7 | 0.752 | 0.009 | 3.4 | 3.1 | 1.562 | 0.7433 |
| 209. | 3879 | 77.7 | 5.53 | 142.7 | 39.2 | 7.9 | 2.6 | 0.352 | 0.007 | 4.4 | 1.1 | 1.062 | 0.3453 |
| 210. | 3880 | 82.5 | 4.23 | 144.7 | 59.2 | 8.0 | 6.4 | 1.152 | 0.009 | 2.4 | 3.1 | 1.562 | 1.1433 |
| 211. | 3884 | 73.7 | 3.83 | 145.7 | 96.9 | 7.3 | 5.9 | 1.052 | 0.008 | 5.4 | 3.1 | 2.062 | 1.0443 |
| 212. | 3885 | 73.2 | 3.63 | 145.7 | 58.8 | 7.4 | 6.9 | 0.952 | 0.010 | 4.4 | 3.1 | 0.562 | 0.9423 |
| 213. | 3891 | 70.7 | 3.63 | 100.7 | 76.0 | 6.9 | 5.8 | 0.652 | 0.008 | 4.4 | 3.1 | 0.562 | 0.6443 |
| 214. | 3895 | 82.7 | 5.73 | 142.7 | 56.4 | 7.8 | 6.1 | 0.752 | 0.007 | 5.4 | 1.1 | 0.562 | 0.7453 |
| 215. | 3897 | 83.7 | 4.23 | 109.7 | 53.1 | 5.8 | 6.4 | 0.452 | 0.006 | 1.4 | 2.1 | 1.062 | 0.4463 |
| 216. | 3899 | #DIV/0! | #DIV/0! | 148.7 | 52.3 | 8.4 | 6.1 | 0.752 | 0.016 | 3.4 | 2.1 | 2.062 | 0.7363 |
| **217** | **FMM 175** | **73.70** | **3.55** | **98.90** | **70.70** | **7.30** | **5.73** | **0.6960** | **0.0065** | **3.60** | **3.30** | **2.0620** | **0.6892** |
| **218** | **FMM 165** | **69.55** | **2.70** | **119.65** | **59.20** | **6.75** | **5.00** | **0.9615** | **0.0135** | **5.20** | **3.30** | **1.1870** | **0.9482** |
| **219** | **Nyika** | **72.47** | **4.95** | **126.27** | **70.03** | **7.70** | **5.90** | **1.2837** | **0.0150** | **4.20** | **3.33** | **2.6453** | **1.2680** |
| **220** | **Senga** | **74.45** | **5.12** | **129.13** | **59.13** | **7.73** | **5.63** | **1.8508** | **0.0148** | **3.00** | **2.28** | **2.4995** | **1.8356** |
| Standard errors for comparing differences between: | | | | | | | | | | | | | |
| 2 checks | | 7.3 | 0.90028 | 8.8657 | 5.8185 | 0.691267 | 0.365171 | 0.305287 | 0.007553 | 0.441928 | 0.382165 | 0.522063 | 0.300915 |
| 2 acc. in same block | | 14.6 | 1.80056 | 17.731 | 11.637 | 1.382534 | 0.730342 | 0.610574 | 0.015106 | 0.883855 | 0.76433 | 1.044126 | 0.601831 |
| 2 acc. in diff. blocks | | 16.3 | 2.01308 | 19.824 | 13.0106 | 1.54572 | 0.816548 | 0.682642 | 0.016889 | 0.98818 | 0.854547 | 1.167369 | 0.672867 |
| An acc. & check means | | 12.9 | 1.59148 | 15.672 | 10.2858 | 1.221999 | 0.645538 | 0.539676 | 0.013352 | 0.781225 | 0.675578 | 0.922886 | 0.531948 |

#DIV/0! = Missing Value

**Annexe XI: Analysis of Variance of Accessions in Optimal Experiment**

Variate: PH

| Source of variation | d.f.(m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 63(142) | 24952.76 | 396.08 | | |
| Residual | 0(10) | | | | |
| Total | 63(152) | 24510.23 | | | |

Variate: NPT

| Source of variation | d.f.(m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 199(6) | 357.516 | 1.797 | 1.76 | 0.161 |
| Residual | 10 | 10.205 | 1.021 | | |
| Total | 209(6) | 367.722 | | | |

Variate: DTF

| Source of variation | d.f.(m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 201(4) | 36819.3 | 183.2 | 1.60 | 0.208 |
| Residual | 10 | 1143.4 | 114.3 | | |
| Total | 211(4) | 37962.7 | | | |

Variate: SL

| Source of variation | d.f.(m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 202(3) | 29238.2 | 144.7 | 1.25 | 0.373 |
| Residual | 10 | 1161.4 | 116.1 | | |
| Total | 212(3) | 30399.6 | | | |

Variate: SW

| Source of variation | d.f.(m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 202(3) | 144.493 | 0.715 | 0.55 | 0.943 |
| Residual | 10 | 13.085 | 1.308 | | |
| Total | 212(3) | 157.578 | | | |

Variate: SN

| Source of variation | d.f.(m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 202(3) | 468.629 | 2.320 | 0.47 | 0.976 |
| Residual | 10 | 49.444 | 4.944 | | |
| Total | 212(3) | 518.072 | | | |

Variate: SY

| Source of variation | d.f.(m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 183(22) | 158.3968 | 0.8656 | 3.42 | 0.032 |
| Residual | 8(2) | 2.0267 | 0.2533 | | |
| Total | 191(24) | 159.6587 | | | |

Variate: GW

| Source of variation | d.f. (m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 194 (11) | 0.0146422 | 0.0000755 | 0.53 | 0.953 |
| Residual | 10 | 0.0014340 | 0.0001434 | | |
| Total | 204 (11) | 0.0160762 | | | |

Variate: PDS

| Source of variation | d.f. | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 205 | 526.093 | 2.566 | 0.97 | 0.583 |
| Residual | 10 | 26.500 | 2.650 | | |
| Total | 215 | 552.593 | | | |

Variate: SGC

| Source of variation | d.f. (m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 105 (100) | 111.5716 | 1.0626 | 4.25 | 0.209 |
| Residual | 2 (8) | 0.5000 | 0.2500 | | |
| Total | 107 (108) | 102.1852 | | | |

Variate: BW

| Source of variation | d.f. (m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 144 (61) | 117.5005 | 0.8160 | 1.99 | 0.194 |
| Residual | 6 (4) | 2.4583 | 0.4097 | | |
| Total | 150 (65) | 118.2550 | | | |

Variate: CW

| Source of variation | d.f. | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 205 | 289.6792 | 1.4131 | 2.04 | 0.105 |
| Residual | 10 | 6.9306 | 0.6931 | | |
| Total | 215 | 296.6098 | | | |

Variate: CGW

| Source of variation | d.f. | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 205 | 2607.113 | 12.718 | 2.04 | 0.105 |
| Residual | 10 | 62.375 | 6.238 | | |
| Total | 215 | 2669.488 | | | |

**Annexe XII: Analysis of Variance of Accessions in Stressed Experiment**

Variate: BW

| Source of variation | d.f.(m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 198(7) | 222.0613 | 1.1215 | 1.51 | 0.241 |
| Residual | 10 | 7.4167 | 0.7417 | | |
| Total | 208(7) | 229.4780 | | | |

Variate: DTF

| Source of variation | d.f.(m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 205 | 46058.7 | 224.7 | 0.94 | 0.609 |
| Residual | 9(1) | 2151.9 | 239.1 | | |
| Total | 214(1) | 48153.5 | | | |

Variate: GW

| Source of variation | d.f.(m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 194(11) | 0.0146422 | 0.0000755 | 0.53 | 0.953 |
| Residual | 10 | 0.0014340 | 0.0001434 | | |
| Total | 204(11) | 0.0160762 | | | |

Variate: PH

| Source of variation | d.f.(m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 199(6) | 19552.3 | 98.3 | 0.66 | 0.864 |
| Residual | 10 | 1488.7 | 148.9 | | |
| Total | 209(6) | 21041.0 | | | |

Variate: NPT

| Source of variation | d.f.(m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 200(5) | 412.686 | 2.063 | 1.58 | 0.214 |
| Residual | 10 | 13.039 | 1.304 | | |
| Total | 210(5) | 425.725 | | | |

Variate: SL

| Source of variation | d.f.(m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 195(10) | 20976.73 | 107.57 | 1.61 | 0.205 |
| Residual | 10 | 667.43 | 66.74 | | |
| Total | 205(10) | 21644.16 | | | |

Variate: SW

| Source of variation | d.f.(m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 195(10) | 124.3232 | 0.6376 | 0.66 | 0.860 |
| Residual | 10 | 9.5888 | 0.9589 | | |
| Total | 205(10) | 133.9120 | | | |

Variate: SN

| Source of variation | d.f.(m.v.) | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 195(10) | 177.5843 | 0.9107 | 3.62 | 0.014 |
| Residual | 10 | 2.5167 | 0.2517 | | |
| Total | 205(10) | 180.1010 | | | |

Variate: PDS

| Source of variation | d.f. | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 205 | 349.093 | 1.703 | 1.67 | 0.185 |
| Residual | 10 | 10.167 | 1.017 | | |
| Total | 215 | 359.259 | | | |

Variate: SGC

| Source of variation | d.f. | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 205 | 172.9583 | 0.8437 | 1.81 | 0.150 |
| Residual | 10 | 4.6667 | 0.4667 | | |
| Total | 215 | 177.6250 | | | |

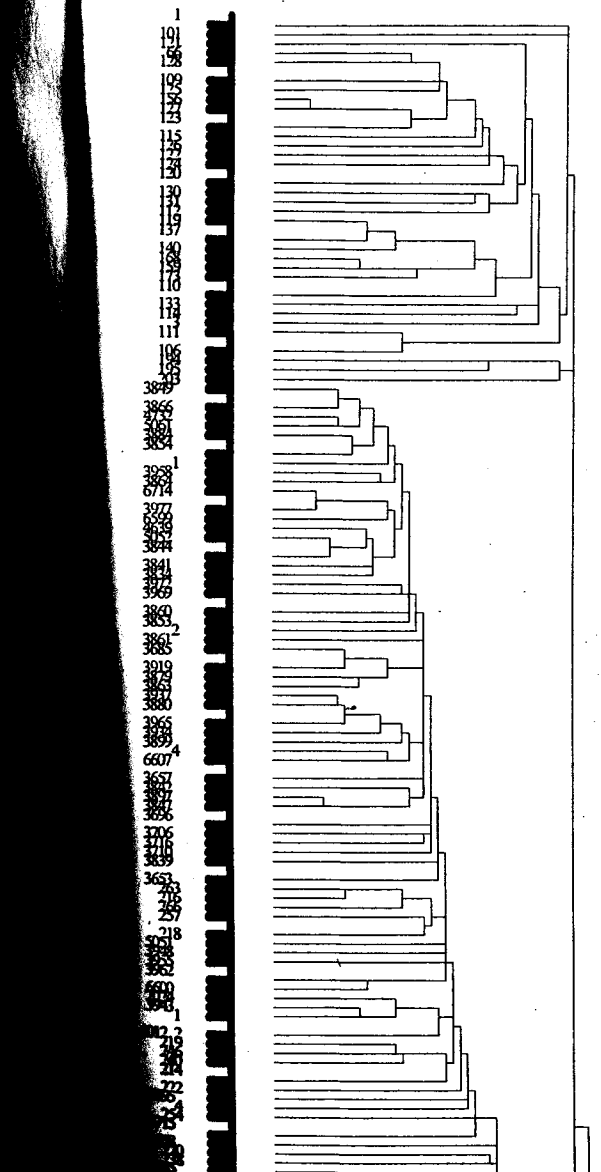
Variate: CW

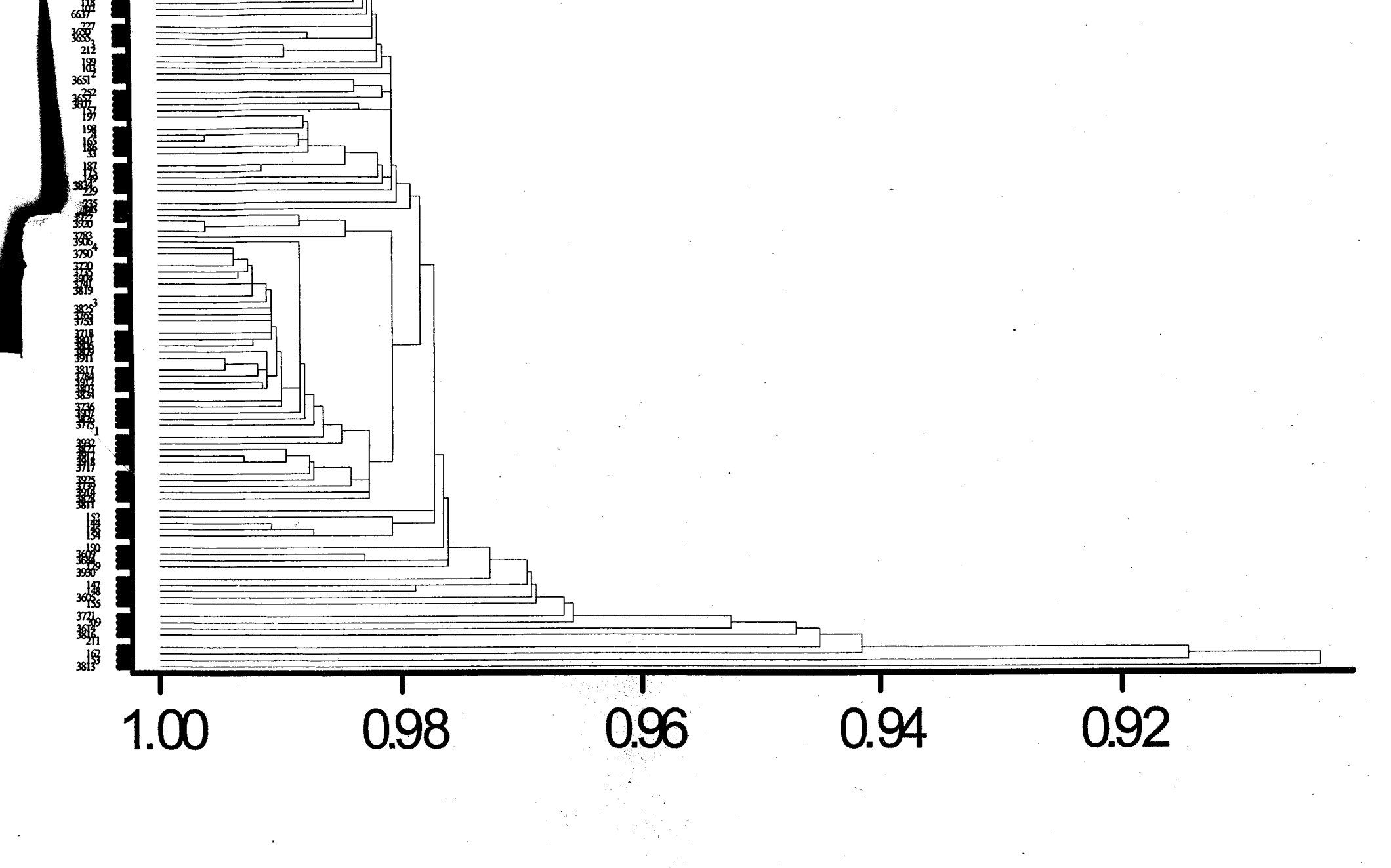
| Source of variation | d.f. | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 205 | 229.7792 | 1.1209 | 2.52 | 0.053 |
| Residual | 10 | 4.4415 | 0.4441 | | |
| Total | 215 | 234.2207 | | | |

Variate: CGW

| Source of variation | d.f. | s.s. | m.s. | v.r. | F pr. |
|---|---|---|---|---|---|
| Accessions | 205 | 2068.013 | 10.088 | 2.52 | 0.053 |
| Residual | 10 | 39.973 | 3.997 | | |
| Total | 215 | 2107.986 | | | |

# Dendrogram of Accessions Under Optimum




1.00
0.98
0.96
0.94
0.92