

## LIST OF FIGURES

- Figs. 1 to 12. Somatic metaphase chromosomes in parental genotypes of grain amaranths.
- Figs. 13 to 24. Chromosomal configurations at metaphase-I stage of meiosis in parental genotypes of grain amaranths.
- Figs. 25 to 33. Chromosomal configurations at metaphase-I stage of meiosis in intra-specific  $F_1$  hybrids of grain amaranths.
- Figs. 34 to 37. Chromosomal configurations at metaphase-I stage of meiosis in inter-specific  $F_1$  hybrids of grain amaranths.
- Figs. 38 to 49. Chromosomal configurations at metaphase-I stage of meiosis in dibasic  $F_1$  (inter-specific) hybrids of grain amaranths.
- Fig. 50. Heterotic effects for days to 50% flowering in  $F_1$  intra- and inter-specific hybrids of grain amaranths.
- Fig. 51. Heterotic effects for days to maturity in  $F_1$  intra- and inter-specific hybrids of grain amaranths.
- Fig. 52. Heterotic effects for plant height in  $F_1$  intra- and inter-specific hybrids of grain amaranths.
- Fig. 53. Heterotic effects for inflorescence length in  $F_1$  intra- and inter-specific hybrids of grain amaranths.
- Fig. 54. Heterotic effects for finger mean length in  $F_1$  intra- and inter-specific hybrids of grain amaranths.
- Fig. 55. Heterotic effects for no. of fingers/inflorescence in  $F_1$  intra- and inter-specific hybrids of grain amaranths.
- Fig. 56. Heterotic effects for no. of leaves/plant in  $F_1$  intra- and inter-specific hybrids of grain amaranths.
- Fig. 57. Heterotic effects for leaf length in  $F_1$  intra- and inter-specific hybrids of grain amaranths.
- Fig. 58. Heterotic effects for leaf width in  $F_1$  intra- and inter-specific hybrids of grain amaranths.
- Fig. 59. Heterotic effects for plant width at base in  $F_1$  intra- and inter-specific hybrids of grain amaranths.
- Fig. 60. Heterotic effects for seed yield/plant in  $F_1$  intra- and inter-specific hybrids of grain amaranths.

- Fig. 61. Bract size in parents, F<sub>1</sub> and F<sub>2</sub> populations of intraspecific (Annapurna/PRA3) hybrid in grain amaranths.
- Fig. 62. Plant morphology and inflorescence colour in parents, F<sub>1</sub> hybrid and F<sub>2</sub> segregating population of the cross Annapurna/Sangla A2.
- Fig. 63. Plant morphology and inflorescence colour in parents, F<sub>1</sub> hybrid and F<sub>2</sub> segregating population of the cross PRA3/Sangla A2.
- Fig. 64. Plant morphology and inflorescence colour in parents, F<sub>1</sub> hybrid and F<sub>2</sub> segregating population of the cross Sangla A1/Sangla A2.
- Fig. 65. Plant morphology and inflorescence colour in parents, F<sub>1</sub> hybrid and F<sub>2</sub> segregating population of the cross Sangla A2/Shimla A4.
- Fig. 66. Plant morphology and inflorescence colour in parents, F<sub>1</sub> hybrid and F<sub>2</sub> segregating population of the cross Shimla A4/Sangla A2.
- Fig. 67. Plant morphology and inflorescence colour in parents, F<sub>1</sub> hybrid and F<sub>2</sub> segregating population of the cross Shimla A3/Sangla A2.
- Fig. 68. Plant morphology and inflorescence colour in parents, F<sub>1</sub> hybrid and F<sub>2</sub> segregating population of the cross Shimla A1/PLP-1.
- Fig. 69. Plant morphology and inflorescence colour in parents, F<sub>1</sub> hybrid and F<sub>2</sub> segregating population of the cross Shimla A3/PLP-1.
- Fig. 70. Plant morphology and inflorescence colour in parents, F<sub>1</sub> hybrid and F<sub>2</sub> segregating population of the cross Shimla A4/PLP-1.
- Fig. 71. Plant morphology and inflorescence colour in parents, F<sub>1</sub> hybrid and F<sub>2</sub> segregating population of the cross Shimla A4/IC-35407.
- Fig. 72. Plant morphology and inflorescence colour in parents, F<sub>1</sub> hybrid and F<sub>2</sub> segregating population of the cross PRA3/IC-35407.
- Fig. 73. Plant morphology and inflorescence colour in parents, F<sub>1</sub> hybrid and F<sub>2</sub> segregating population of the cross Annapurna/ACC-1.
- Fig. 74. Plant morphology and inflorescence colour in parents, F<sub>1</sub> hybrid and F<sub>2</sub> segregating population of the cross Annapurna/Shimla A2.
- Fig. 75. Plant morphology and inflorescence colour in parents, F<sub>1</sub> hybrid and F<sub>2</sub> segregating population of the cross PRA3/Shimla A2.
- Fig. 76. Plant morphology and inflorescence colour in parents, F<sub>1</sub> hybrid and F<sub>2</sub> segregating population of the cross PRA3/IC-1733.
- Fig. 77. Seed coat colour in parents, F<sub>1</sub> and F<sub>2</sub> population of the inter-specific hybrid PRA3/IC-35407 in grain amaranths.

Fig. 78. Seed coat colour in parents, F<sub>1</sub> and F<sub>2</sub> population of the inter-specific hybrid Annapurna/PLP-1 in grain amaranths.

Fig. 79. Seed coat colour in parents, F<sub>1</sub> and F<sub>2</sub> populations of one intra-specific (ACC-1/Shimla A2) and two inter-specific hybrids (Annapurna/Shimla A2 and PRA3/Shimla A2) in grain amaranths.