**Table 1. Morphological characters of BC1F1 plants (BC plants only) in combination (ARM-243B x ANN-232)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Plant No.** | **Plant height** | **Stem girth (mm)** | **No. of leaves** | **Head diameter** | **Head colour** | **Leaf size** | **Leaf length** | **Leaf width** | **Leaf colour** | **Pollen colour** | **Leaf shape** | **Flower opening** | **Leaf serr.** | **Leaf blist.** |
| 1 | 167.0 | 18.85 | 25 | 10.5 | Purple | M | 23.4 | 23.0 | Green | Yellow | T | 24/9 | M | W |
| 2 | 136.0 | 20.20 | 25 | 7.4 | Yellow | S | 20.1 | 19.0 | Green | Yellow | T | 29/9 | M | W |
| 3 | 200.0 | 24.05 | 29 | 14.0 | Yellow | M | 28.5 | 29.0 | MG | Yellow | C | 7/10 | M | M |
| 4 | 200.0 | 17.98 | 38 | 7.5 | Yellow | M | 19.0 | 17.0 | MG | Yellow | T | 3/10 | M | W |
| 5 | 156.0 | 26.92 | 42 | 12.0 | Yellow | M | 29.0 | 27.0 | Green | Yellow | C | 10/10 | M | W |
| 6 | 233.0 | 13.34 | 28 | 9.0 | Purple | S | 15.3 | 16.5 | Green | Yellow | C | 24/9 | M | A |
| 7 | 246.0 | 24.80 | 46 | 10.0 | Yellow | M | 21.0 | 21.5 | Green | Yellow | T | 23/9 | M | VW |
| 8 | 200.0 | 23.65 | 42 | 13.0 | Purple | M | 24.0 | 25.5 | Green | Yellow | T | 5/10 | M | W |
| 9 | 116.0 | 29.24 | 30 | 11.0 | Purple | M | 28.0 | 21.5 | Green | Yellow | T | 19/9 | M | W |
| 10 | 220.0 | 16.42 | 27 | 13.0 | Yellow | M | 24.5 | 16.0 | Green | Yellow | T | 22/9 | M | M |
| 11 | 200.0 | 24.70 | 48 | 16.0 | Purple | M | 25.5 | 22.5 | MG | Yellow | T | 5/10 | M | M |
| 12 | 210.0 | 19.63 | 38 | 11.0 | Yellow | M | 30.0 | 26.0 | MG | Yellow | T | 23/9 | M | M |
| 13 | 200.0 | 19.68 | 48 | 11.0 | Purple | M | 22.0 | 19.5 | MG | Yellow | T | 5/10 | M | M |
| 14 | 220.0 | 18.83 | 33 | 10.0 | Yellow | M | 22.0 | 23.5 | MG | Yellow | T | 26/9 | M | W |
| 15 | 210.0 | 22.83 | 38 | 13.0 | Purple | M | 23.0 | 22.0 | MG | Yellow | T | 28/9 | M | M |
| 16 | 169.0 | 23.00 | 38 | 13.0 | Purple | M | 24.0 | 22.5 | MG | Yellow | T | 5/10 | M | VW |
| 17 | 163.0 | 12.76 | 32 | 11.0 | Yellow | S | 20.0 | 21.5 | MG | Yellow | T | 21/9 | M | W |
| 18 | 220.0 | 15.84 | 26 | 9.0 | Yellow | S | 19.0 | 17.7 | MG | Yellow | C | 22/9 | M | VW |
| 19 | 162.0 | 18.23 | 38 | 10.0 | Yellow | M | 23.2 | 22.0 | MG | Yellow | C | 29/9 | M | M |
| 20 | 191.0 | 16.33 | 28 | 8.0 | Yellow | M | 16.0 | 14.6 | MG | Yellow | C | 21/9 | M | A |
| 21 | 164.0 | 18.09 | 28 | 10.0 | Yellow | M | 29.0 | 22.0 | MG | Yellow | T | 24/9 | M | W |
| 22 | 156.0 | 21.63 | 36 | 11.0 | Yellow | M | 28.5 | 27.0 | MG | Yellow | T | 24/9 | M | W |
| 23 | 245.0 | 16.48 | 26 | 11.0 | Purple | M | 23.0 | 26.8 | MG | Yellow | T | 24/9 | M | W |
| 24 | 233.0 | 24.80 | 48 | 13.0 | Purple | M | 30.5 | 29.0 | MG | Yellow | T | 5/10 | M | A |
| 25 | 180.0 | 25.79 | 48 | 14.0 | Yellow | M | 29.0 | 27.5 | MG | Yellow | T | 5/10 | Fine | W |
| 26 | 233.0 | 21.36 | 30 | 12.0 | Purple | M | 23.0 | 21.3 | Green | Yellow | T | 26/9 | M | W |
| 27 | 154.0 | 20.10 | 46 | 11.0 | Purple | M | 26.1 | 22.0 | Green | Yellow | T | 3/10 | Fine | VW |
| 28 | 238.0 | 15.17 | 34 | 11.0 | Yellow | M | 16.0 | 14.8 | Green | Yellow | C | 29/9 | M | A |
| 29 | 182.0 | 20.02 | 40 | 11.0 | Yellow | S | 15.0 | 14.2 | Green | Yellow | T | 5/10 | Fine | W |
| 30 | 152.0 | 15.00 | 28 | 9.0 | Purple | S | 16.5 | 14.5 | Green | Yellow | T | 27/9 | Fine | M |
| 31 | 158.0 | 15.82 | 30 | 9.0 | Purple | S | 17.0 | 16.2 | Green | Yellow | T | 22/9 | M | M |
| 32 | 209.0 | 13.24 | 28 | 8.0 | LP | S | 15.5 | 14.0 | Green | Yellow | T | 21/9 | M | W |
| 33 | 158.0 | 17.42 | 48 | 9.0 | Purple | S | 16.5 | 16.0 | Green | Yellow | T | 21/9 | M | W |
| 34 | 168.0 | 16.13 | 28 | 8.0 | Yellow | M | 16.0 | 14.0 | Green | Yellow | T | 22/9 | M | A |
| 35 | 178.0 | 14.12 | 36 | 11.0 | Yellow | M | 18.5 | 17.0 | Green | Yellow | T | 26/9 | Fine | W |
| 36 | 210.0 | 24.67 | 44 | 10.0 | Purple | M | 19.5 | 18.0 | Green | Yellow | T | 25/9 | M | M |
| 37 | 249.0 | 22.07 | 42 | 11.0 | Purple | M | 18.5 | 18.0 | Green | Yellow | T | 26/9 | M | W |
| 38 | 152.0 | 27.46 | 34 | 13.0 | Yellow | M | 25.0 | 27.0 | Green | Yellow | C | 5/10 | M | M |
| 39 | 209.0 | 11.00 | 28 | 8.0 | Purple | S | 14.5 | 14.0 | Green | Yellow | T | 22/9 | M | A |
| 40 | 155.0 | 17.23 | 30 | 9.0 | Purple | M | 18.5 | 18.0 | Green | Yellow | T | 24/9 | Fine | A |
| 41 | 155.0 | 12.03 | 24.0 | 8.0 | Purple | S | 14.5 | 14.0 | G | Yellow | T | 24/9 | M | A |
| 42 | 200.1 | 27.23 | 36.0 | 11.0 | Purple | M | 26.0 | 24.5 | G | Yellow | C | 24/9 | M | M |
| 43 | 186.0 | 24.43 | 32.0 | 11.0 | Yellow | M | 19.0 | 18.5 | G | Yellow | T | 24/9 | M | M |
| 44 | 200.0 | 21.60 | 42.0 | 11.0 | Purple | M | 22.5 | 23.0 | G | Yellow | C | 26/9 | M | W |
| 45 | 192.0 | 22.41 | 36.0 | 10.0 | Purple | M | 21.5 | 18.5 | MG | Yellow | T | 24/9 | M | A |
| 46 | 153.0 | 13.50 | 28.0 | 9.0 | Yellow | S | 15.5 | 15.0 | G | Yellow | T | 19/9 | F | W |
| 47 | 186.0 | 19.39 | 28.0 | 10.0 | Purple | M | 17.5 | 17.0 | G | Yellow | C | 26/9 | M | A |
| 48 | 156.0 | 14.04 | 32.0 | 10.0 | Yellow | S | 17.5 | 16.0 | G | Yellow | T | 22/9 | M | A |
| 49 | 176.0 | 13.74 | 24.0 | 9.0 | Yellow | S | 13.5 | 13.0 | G | Yellow | T | 26/9 | F | VW |
| 50 | 179.0 | 17.33 | 38.0 | 9.0 | Yellow | S | 18.5 | 18.0 | G | Yellow | T | 25/9 | F | A |
| 51 | 230.0 | 28.58 | 48.0 | 14.0 | Purple | M | 24.0 | 18.0 | G | Yellow | C | 3/10 | M | W |
| 52 | 200.0 | 25.84 | 48.0 | 15.0 | Yellow | M | 28.0 | 25.0 | G | Yellow | C | 5/10 | M | M |
| 53 | 147.0 | 16.73 | 28.0 | 10.0 | DP | S | 19.0 | 17.5 | G | Yellow | T | 3/10 | F | A |
| 54 | 210.0 | 23.91 | 46.0 | 13.0 | Purple | M | 22.5 | 22.0 | G | Yellow | T | 29/9 | M | A |
| 55 | 163.0 | 14.91 | 28.0 | 9.0 | Yellow | M | 19.0 | 18.5 | G | Yellow | T | 29/9 | F | A |
| 56 | 165.0 | 16.22 | 28.0 | 10.0 | Yellow | S | 17.0 | 16.0 | G | Yellow | T | 26/9 | M | W |
| 57 | 234.0 | 26.87 | 46.0 | 14.0 | Purple | M | 21.5 | 20.0 | G | Yellow | C | 5/10 | M | A |
| 58 | 156.0 | 12.15 | 36.0 | 9.0 | Yellow | S | 20.0 | 19.0 | G | Yellow | T | 22/9 | M | A |
| 59 | 200.0 | 20.68 | 30.0 | 13.0 | Purple | M | 22.0 | 21.0 | G | Yellow | C | 26/9 | M | M |
| 60 | 156.0 | 13.60 | 28.0 | 11.0 | Purple | S | 15.5 | 15.0 | G | Yellow | C | 29/9 | F | A |
| 61 | 241.0 | 30.62 | 46.0 | 13.0 | Yellow | M | 24.0 | 30.0 | MG | Yellow | C | 6/10 | M | A |
| 62 | 156.0 | 16.24 | 24.0 | 9.0 | Yellow | M | 17.0 | 19.0 | G | Yellow | C | 26/9 | M | W |
| 63 | 200.0 | 23.67 | 38.0 | 10.0 | Yellow | M | 22.0 | 23.0 | G | Yellow | C | 5/10 | M | A |
| 64 | 210.0 | 24.03 | 40.0 | 11.0 | Purple | M | 21.5 | 22.5 | G | Yellow | C | 4/10 | M | M |
| 65 | 159.0 | 16.49 | 30.0 | 11.0 | Purple | M | 19.0 | 21.5 | G | Yellow | C | 26/9 | M | A |
| 66 | 210.0 | 24.45 | 42.0 | 13.0 | Purple | M | 29.0 | 28.0 | G | Yellow | C | 5/10 | M | M |
| 67 | 210.0 | 24.27 | 28.0 | 11.0 | Yellow | M | 24.0 | 23.0 | G | Yellow | T | 29/9 | M | W |
| 68 | 200.0 | 19.23 | 30.0 | 9.0 | Purple | M | 21.0 | 20.0 | G | Yellow | C | 29/10 | F | A |
| 69 | 185.0 | 16.70 | 30.0 | 9.0 | Purple | S | 16.5 | 16.0 | G | Yellow | C | 30/10 | F | W |
| 70 | 188.0 | 19.04 | 28.0 | 13.0 | Purple | M | 19.5 | 19.0 | G | Yellow | C | 5/10 | M | M |
| 71 | 168.0 | 20.78 | 32.0 | 11.0 | Yellow | M | 19.0 | 20.0 | G | Yellow | T | 29/10 | M | A |
| 72 | 187.0 | 19.98 | 36.0 | 11.0 | Purple | M | 18.5 | 18.5 | G | Yellow | C | 26/9 | M | W |
| 73 | 210.0 | 20.99 | 32.0 | 14.0 | Purple | M | 19.0 | 20.5 | G | Yellow | C | 7/10 | M | W |
| 74 | 200.0 | 19.79 | 33.0 | 11.0 | Purple | M | 22.0 | 20.5 | G | Yellow | T | 23/9 | M | A |
| 75 | 152.0 | 19.20 | 26.0 | 9.0 | Yellow | M | 22.2 | 19.0 | G | Yellow | C | 26/9 | M | M |
| 76 | 185.0 | 23.80 | 28.0 | 13.0 | Yellow | M | 21.4 | 21.0 | G | Yellow | C | 26/9 | M | W |
| 77 | 168.0 | 28.31 | 26.0 | 12.0 | Yellow | M | 25.5 | 26.0 | G | Yellow | C | 26/9 | M | M |
| 78 | 200.0 | 28.46 | 42.0 | 20.0 | Yellow | M | 25.0 | 22.0 | G | Yellow | C | 5/10 | M | M |
| 79 | 155.0 | 14.78 | 28.0 | 9.0 | Yellow | S | 18.5 | 16.0 | G | Yellow | C | 26/9 | M | W |
| 80 | 179.0 | 17.13 | 28.0 | 11.0 | Purple | S | 15.0 | 16.0 | G | Yellow | C | 6/10 | F | A |
| 81 | 200.0 | 28.56 | 32.0 | 15.0 | Purple | M | 26.0 | 27.0 | Green | Yellow | C | 3/10 | M | M |
| 82 | 210.0 | 23.20 | 30.0 | 14.0 | Purple | M | 21.0 | 20.5 | Green | Yellow | C | 4/10 | F | A |
| 83 | 172.0 | 20.24 | 34.0 | 8.0 | Yellow | M | 16.0 | 14.0 | Green | Yellow | C | 3/10 | M | W |
| 84 | 182.0 | 20.11 | 28.0 | 12.0 | Yellow | M | 18.0 | 16.0 | Green | Yellow | T | 3/10 | M | M |
| 85 | 210.0 | 29.16 | 38.0 | 13.0 | Yellow | M | 25.5 | 27.0 | Green | Yellow | C | 4/10 | F | M |
| 86 | 142.8 | 2o.42 | 22.0 | 12.0 | Yellow | S | 16.0 | 14.0 | Green | Yellow | T | 24/9 | M | A |
| 87 | 210.0 | 22.46 | 36.0 | 11.0 | Yellow | M | 16.0 | 22.0 | Green | Yellow | C | 3/10 | M | W |
| 88 | 147.0 | 19.40 | 22.0 | 11.0 | Yellow | S | 13.0 | 11.0 | Green | Yellow | C | 29/9 | M | A |
| 89 | 166.0 | 18.50 | 24.0 | 11.0 | Yellow | S | 16.0 | 14.0 | Green | Yellow | C | 29/9 | M | W |
| 90 | 200.0 | 21.85 | 28.0 | 13.0 | LP | M | 25.0 | 22.0 | Green | Yellow | C | 4/10 | M | W |
| 91 | 226.0 | 28.41 | 42.0 | 14.0 | Yellow | M | 25.0 | 20.6 | Green | Yellow | C | 6/10 | M | M |
| 92 | 200.0 | 23.27 | 40.0 | 13.0 | Yellow | M | 25.0 | 24.0 | Green | Yellow | C | 4/10 | M | W |
| 93 | 185.0 | 24.64 | 32.0 | 13.0 | Yellow | M | 21.5 | 23.0 | Green | Yellow | C | 6/10 | M | W |

**Table 2. Morphological characters of BC1F1 plants (BC plants only) in combination (ARM-243B x ANN-243)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Plant No.** | **Plant height** | **Stem girth (mm)** | **No. of leaves** | **Head diameter** | **Head colour** | **Leaf size** | **Leaf length** | **Leaf width** | **Leaf colour** | **Pollen colour** | **Leaf shape** | **Stem pig.** | **Petiole pig.** | **Flower opening** | **Leaf serr.** | **Leaf blist.** |
| 1 | 135.0 | 16.41 | 22 | 6.5 | Y | S | 19.0 | 17.0 | G | Y | C | A | P | 21/9 | F | M |
| 2 | 200.0 | 17.40 | 28 | 8.0 | P | M | 22.0 | 20.0 | G | Y | C | A | A | 26/9 | F | A |
| 3 | 210.0 | 22.53 | 44 | 5.0 | P | S | 15.0 | 13.0 | G | Y | L | P | P | 8/10 | F | M |
| 4 | 185.0 | 18.73 | 28 | 8.0 | LP | M | 23.0 | 24.0 | LG | Y | C | A | P | 21/9 | F | W |
| 5 | 178.0 | 18.52 | 29 | 10.0 | Y | M | 18.0 | 21.0 | MG | Y | C | A | A | 15/10 | F | W |
| 6 | 188.0 | 22.21 | 28 | 7.0 | P | M | 16.0 | 15.0 | MG | Y | T | A | P | 28/9 | F | M |
| 7 | 215.0 | 17.70 | 44 | 14.0 | P | M | 18.0 | 15.0 | LG | Y | C | A | P | 5/10 | M | VW |
| 8 | 160.0 | 24.45 | 30 | 9.0 | P | M | 20.0 | 16.0 | G | Y | T | A | P | 5/10 | F | W |
| 9 | 178.0 | 22.53 | 30 | 7.0 | P | S | 17.0 | 13.5 | G | Y | C | A | P | 23/9 | F | VW |
| 10 | 170.0 | 19.61 | 26 | 8.5 | P | S | 15.0 | 17.0 | G | Y | C | A | A | 28/9 | F | W |
| 11 | 202.0 | 21.15 | 35 | 7.5 | P | M | 22.0 | 20.0 | G | Y | C | A | P | 24/9 | F | VW |
| 12 | 195.0 | 27.23 | 36 | 10.0 | Y | M | 21.0 | 18.0 | G | Y | C | A | P | 26/9 | M | W |
| 13 | 160.0 | 12.24 | 27 | 7.5 | Y | M | 21.0 | 18.0 | G | Y | C | A | P | 23/9 | M | VW |
| 14 | 172.0 | 24.76 | 28 | 8.0 | Y | S | 16.0 | 12.0 | G | Y | T | A | P | 20/9 | F | W |
| 15 | 192.0 | 27.58 | 27 | 9.5 | Y | M | 25.0 | 21.0 | G | Y | C | A | A | 24/9 | M | W |
| 16 | 150.0 | 19.97 | 26 | 7.0 | Y | M | 19.0 | 16.0 | G | Y | C | A | P | 26/9 | F | VW |
| 17 | 230.0 | 18.75 | 40 | 15.0 | Y | M | 26.0 | 24.0 | MG | Y | T | A | A | 5/10 | F | VW |
| 18 | 170.0 | 22.06 | 25 | 8.0 | P | M | 17.0 | 14.0 | MG | Y | C | A | A | 20/9 | F | W |
| 19 | 190.0 | 18.52 | 28 | 5.0 | LP | S | 16.0 | 12.0 | G | Y | C | A | A | 24/9 | F | W |
| 20 | 180.0 | 20.02 | 25 | 9.0 | LP | M | 19.0 | 16.0 | G | Y | C | A | A | 20/9 | F | W |
| 21 | 202.0 | 18.98 | 35 | 9.0 | P | M | 18.0 | 15.0 | G | Y | C | A | A | 26/9 | F | W |
| 22 | 185.0 | 19.72 | 26 | 7.0 | P | M | 15.0 | 10.0 | G | Y | C | A | A | 24/9 | F | W |
| 23 | 170.0 | 19.32 | 26 | 6.0 | Y | S | 16.0 | 12.0 | G | Y | T | A | P | 26/9 | F | W |
| 24 | 188.0 | 25.66 | 29 | 6.5 | Y | S | 17.0 | 16.0 | G | Y | C | A | A | 22/9 | F | W |
| 25 | 201.0 | 21.02 | 32 | 9.0 | P | M | 21.0 | 18.0 | G | Y | C | A | P | 5/10 | M | VW |
| 26 | 173.0 | 24.70 | 25 | 7.0 | P | M | 19.0 | 13.0 | G | Y | C | A | A | 5/10 | F | VW |
| 27 | 200.0 | 16.52 | 25 | 9.0 | P | M | 18.0 | 16.0 | G | Y | C | A | A | 26/9 | F | VW |
| 28 | 190.0 | 18.57 | 30 | 8.0 | P | M | 17.0 | 15.0 | G | Y | C | A | A | 28/9 | F | VW |
| 29 | 220.0 | 20.62 | 32 | 8.0 | Y | M | 12.0 | 12.0 | G | Y | C | A | A | 6/10 | F | VW |
| 30 | 205.0 | 21.37 | 38 | 10.0 | Y | S | 15.0 | 13.0 | GG | Y | C | A | A | 5/10 | F | M |
| 31 | 190.0 | 24.13 | 27 | 12.0 | P | M | 21.0 | 19.0 | G | Y | C | A | P | 2/10 | F | M |
| 32 | 230.0 | 22.35 | 48 | 11.0 | LP | M | 18.0 | 19.0 | G | Y | C | A | P | 3/10 | M | VW |
| 33 | 200.0 | 19.09 | 29 | 8.0 | Y | S | 16.0 | 14.0 | G | Y | C | A | A | 8/10 | F | W |
| 34 | 230.0 | 31.73 | 39 | 16.0 | Y | L | 29.0 | 25.0 | MG | Y | C | A | A | 5/10 | M | W |
| 35 | 207.0 | 22.28 | 35 | 9.0 | Y | M | 16.0 | 15.0 | LG | Y | T | A | A | 6/10 | F | M |
| 36 | 210.0 | 24.34 | 29 | 11.0 | Y | M | 19.0 | 18.0 | G | Y | C | A | A | 6/10 | F | S |
| 37 | 200.0 | 21.11 | 39 | 12.0 | DP | M | 20.0 | 18.0 | DG | Y | C | LP | P | 5/10 | F | W |
| 38 | 180.0 | 19.67 | 27 | 10.0 | Y | S | 15.0 | 14.0 | MG | Y | T | A | LP | 13/10 | F | VW |
| 39 | 200.0 | 17.12 | 37 | 11.0 | Y | M | 22.0 | 18.0 | MG | Y | C | A | A | 5/10 | F | W |
| 40 | 160.0 | 19.62 | 25 | 7.0 | P | M | 18.0 | 16.0 | G | Y | C | A | A | 2/10 | F | W |
| 41 | 190.0 | 25.18 | 32 | 8.0 | P | M | 20.0 | 19.0 | G | Y | C | A | A | 30/9 | F | W |
| 42 | 155.0 | 20.79 | 25 | 5.0 | Y | S | 16.0 | 15.0 | G | Y | T | A | A | 25/9 | F | W |
| 43 | 180.0 | 22.46 | 28 | 11.0 | Y | M | 25.0 | 24.0 | G | Y | T | A | LP | 30/9 | F | W |
| 44 | 230.0 | 22.76 | 35 | 11.0 | LP | M | 25.0 | 23.0 | MG | Y | C | LP | LP | 3/10 | F | VW |
| 45 | 205.0 | 21.56 | 35 | 11.0 | Y | M | 18.0 | 16.0 | G | Y | C | A | A | 25/9 | F | W |
| 46 | 210.0 | 21.79 | 30 | 11.5 | Y | M | 20.0 | 19.0 | G | Y | C | A | LP | 3/10 | F | W |
| 47 | 200.0 | 24.82 | 29 | 10.0 | MP | B | 25.0 | 26.0 | G | Y | C | A | LP | 29/9 | M | W |
| 48 | 202.0 | 20.17 | 31 | 11.0 | Y | M | 20.0 | 18.0 | MG | Y | T | A | A | 28/9 | F | W |
| 49 | 210.0 | 29.17 | 26 | 12.0 | Y | S | 15.0 | 12.0 | G | Y | C | A | LP | 28/9 | M | VW |
| 50 | 160.0 | 19.10 | 25 | 8.0 | P | S | 16.0 | 15.0 | G | Y | C | A | LP | 4/10 | F | W |
| 51 | 240.0 | 30.01 | 39 | 15.0 | Y | B | 28.0 | 27.0 | G | Y | C | A | A | 5/10 | F | W |

**Table 3. Morphological characters of BC1F1 plants (BC plants only) in combination (ARM-243B x ANN-1270)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Plant No.** | **Plant height** | **Stem girth** | **No. of leaves** | **Head diameter** | **Head colour** | **Leaf size** | **Leaf length** | **Leaf width** | **Leaf colour** | **Pollen colour** | **Leaf shape** | **Stem pig.** | **Petiole pig.** | **Flower opening** | **Leaf serr.** | **Leaf blist.** |
| 1 | 260.0 | 22.60 | 38 | 15.0 | DP | B | 28.0 | 27.0 | DG | Y | C | LP | P | 12/10 | F | M |
| 2 | 200.0 | 18.07 | 29 | 10.0 | P | M | 20.0 | 18.0 | G | Y | C | A | A | 23/9 | F | W |
| 3 | 220.0 | 18.86 | 35 | 7.0 | P | M | 14.0 | 12.0 | G | Y | T | A | A | 6/10 | F | W |
| 4 | 190.0 | 22.20 | 27 | 8.0 | Y | M | 17.0 | 18.0 | G | Y | C | A | LP | 1/10 | F | VW |
| 5 | 210.0 | 17.40 | 32 | 14.0 | P | M | 24.0 | 23.0 | G | Y | C | A | LP | 6/10 | F | W |
| 6 | 160.0 | 20.72 | 31 | 7.0 | P | M | 17.0 | 18.0 | G | Y | T | A | A | 30/9 | F | VW |
| 7 | 210.0 | 30.75 | 29 | 10.0 | Y | M | 18.0 | 15.0 | G | Y | C | LP | MP | 8/10 | F | VW |
| 8 | 200.0 | 15.30 | 30 | 15.0 | Y | B | 29.0 | 28.0 | G | Y | C | A | LP | 2/10 | F | W |
| 9 | 176.0 | 17.72 | 22 | 8.0 | Y | M | 16.0 | 17.0 | G | Y | C | A | A | 25/9 | F | VW |
| 10 | 210.0 | 25.62 | 30 | 9.0 | P | M | 25.0 | 24.0 | G | Y | C | A | LP | 9/10 | M | W |
| 11 | 180.0 | 22.42 | 27 | 9.0 | Y | M | 20.0 | 17.0 | MG | Y | T | A | A | 24/9 | F | VW |
| 12 | 200.0 | 19.75 | 34 | 10.0 | P | M | 25.0 | 20.0 | G | Y | C | A | MP | 4/10 | F | W |
| 13 | 215.0 | 12.63 | 29 | 10.0 | P | M | 27.0 | 25.0 | G | Y | C | A | LP | 26/9 | F | VW |
| 14 | 230.0 | 24.50 | 40 | 10.0 | P | M | 20.0 | 17.0 | G | Y | C | LP | P | 9/10 | M | W |
| 15 | 185.0 | 17.52 | 27 | 7.0 | P | M | 15.0 | 14.0 | MG | Y | C | A | LP | 25/9 | F | VW |
| 16 | 210.0 | 27.22 | 26 | 11.0 | P | M | 2.0 | 20.0 | G | Y | C | A | MP | 6/10 | F | W |
| 17 | 190.0 | 12.60 | 30 | 6.0 | Y | S | 15.0 | 10.0 | G | Y | T | A | A | 10/10 | F | VW |
| 18 | 200.0 | 15.50 | 25 | 9.0 | DP | M | 20.0 | 18.0 | G | Y | C | A | LP | 5/10 | F | W |
| 19 | 210.0 | 18.72 | 32 | 8.0 | Y | M | 18.0 | 16.0 | G | Y | C | A | LP | 5/10 | M | VW |
| 20 | 200.0 | 25.52 | 25 | 8.0 | P | M | 22.0 | 20.0 | G | Y | C | LP | LP | 3/10 | F | W |
| 21 | 210.0 | 29.62 | 22 | 10.0 | P | M | 19.0 | 18.0 | G | Y | C | A | MP | 3/10 | F | VW |
| 22 | 174.0 | 25.33 | 40 | 8.0 | Y | S | 15.0 | 14.0 | MG | Y | C | A | A | 27/9 | F | W |
| 23 | 192.0 | 27.53 | 24 | 11.0 | P | B | 25.0 | 24.0 | G | Y | T | A | MP | 28/9 | M | M |
| 24 | 180.0 | 22.65 | 35 | 10.0 | Y | M | 22.0 | 22.0 | G | Y | C | A | LP | 30/9 | F | W |
| 25 | 150.0 | 17.75 | 36 | 9.0 | Y | M | 16.0 | 14.0 | G | Y | C | A | LP | 4/10 | F | VW |
| 26 | 194.0 | 28.92 | 30 | 9.0 | P | S | 12.0 | 10.0 | G | Y | T | LP | A | 3/10 | F | W |
| 27 | 231.0 | 29.72 | 31 | 12.0 | DP | M | 23.0 | 20.0 | MG | Y | C | LP | MP | 5/10 | M | W |
| 28 | 194.0 | 30.32 | 36 | 11.0 | Y | S | 17.0 | 12.0 | G | Y | C | LP | LP | 3/10 | F | VW |
| 29 | 180.0 | 22.25 | 35 | 11.0 | Y | M | 20.0 | 17.0 | G | Y | C | A | MP | 9/10 | M | W |
| 30 | 180.0 | 19.88 | 26 | 8.0 | Y | M | 20.0 | 18.0 | G | Y | C | A | LP | 2/10 | F | W |
| 31 | 160.0 | 15.52 | 25 | 7.0 | DP | M | 16.0 | 14.0 | G | Y | C | LP | A | 25/9 | F | M |
| 32 | 180.0 | 19.22 | 30 | 9.0 | Y | M | 20.0 | 19.0 | G | Y | T | A | LP | 3/10 | M | W |
| 33 | 200.0 | 25.44 | 32 | 12.0 | LPDP | M | 18.0 | 17.0 | G | Y | C | LP | LP | 3/10 | F | VW |
| 34 | 200.0 | 26.61 | 31 | 10.0 | Y | M | 20.0 | 18.0 | LG | Y | T | A | LP | 5/10 | M | W |
| 35 | 234.0 | 27.66 | 32 | 11.0 | P | M | 22.0 | 20.0 | G | Y | C | A | A | 6/10 | F | W |
| 36 | 200.0 | 29.72 | 35 | 13.0 | P | M | 22.0 | 20.0 | G | Y | R | A | LP | 5/10 | C | S |
| 37 | 170.0 | 17.62 | 25 | 8.0 | P | M | 18.0 | 16.0 | G | Y | C | A | A | 2/10 | F | W |
| 38 | 172.0 | 32.05 | 31 | 10.0 | Y | S | 15.0 | 14.0 | G | Y | C | A | A | 30/9 | F | VW |
| 39 | 170.0 | 18.75 | 27 | 10.0 | Y | M | 15.0 | 14.0 | G | Y | C | A | A | 29/9 | F | W |
| 40 | 180.0 | 16.62 | 27 | 9.0 | Y | S | 14.0 | 12.0 | G | Y | C | A | A | 21/9 | F | VW |
| 41 | 160.0 | 19.72 | 31 | 8.0 | DP | M | 20.0 | 18.0 | MG | Y | T | A | A | 25/9 | F | W |
| 42 | 170.0 | 25.55 | 25 | 8.0 | Y | M | 18.0 | 16.0 | G | Y | C | A | A | 29/9 | F | W |
| 43 | 192.0 | 30.72 | 32 | 13.0 | MP | M | 22.0 | 20.0 | G | Y | C | A | A | 1/10 | F | W |
| 44 | 184.0 | 17.62 | 27 | 6.0 | Y | M | 15.0 | 12.0 | G | Y | C | A | A | 6/10 | F | W |
| 45 | 210.0 | 19.72 | 42 | 10.0 | MP | M | 18.0 | 17.0 | G | Y | C | A | LP | 6/10 | M | VW |
| 46 | 198.0 | 22.76 | 35 | 9.0 | P | M | 20.0 | 22.0 | MG | Y | C | A | A | 26/9 | F | VW |
| 47 | 200.0 | 32.20 | 32 | 8.0 | Y | M | 21.0 | 20.0 | G | Y | C | A | LP | 4/10 | F | W |
| 48 | 200.0 | 16.88 | 35 | 8.0 | Y | M | 15.0 | 16.0 | G | Y | C | A | A | 29/9 | F | W |
| 49 | 200.0 | 25.65 | 30 | 10.0 | Y | M | 18.0 | 17.0 | G | Y | C | A | LP | 3/10 | F | W |
| 50 | 240.0 | 27.62 | 35 | 10.0 | Y | M | 20.0 | 19.0 | G | Y | C | A | LP | 5/10 | F | W |
| 51 | 174.0 | 17.72 | 28 | 9.0 | Y | M | 22.0 | 20.0 | G | O | T | A | A | 25/9 | M | VW |
| 52 | 182.0 | 16.17 | 35 | 9.0 | Y | M | 15.0 | 14.0 | G | Y | T | A | A | 8/10 | F | W |
| 53 | 181.0 | 15.22 | 36 | 6.0 | DP | M | 16.0 | 15.0 | G | Y | C | A | A | 3/10 | F | W |
| 54 | 200.0 | 25.22 | 31 | 12.0 | P | B | 25.0 | 24.0 | G | Y | C | LP | LP | 8/10 | M | W |
| 55 | 180.0 | 17.55 | 32 | 8.0 | P | M | 15.0 | 14.0 | G | Y | C | A | A | 30/9 | F | W |
| 56 | 210.0 | 26.60 | 35 | 11.0 | Y | M | 20.0 | 22.0 | G | Y | C | A | LP | 6/10 | F | W |
| 57 | 217.0 | 18.72 | 31 | 12.0 | P | M | 22.0 | 20.0 | G | Y | C | LP | MP | 8/10 | M | W |
| 58 | 185.0 | 12.66 | 25 | 7.0 | P | M | 15.0 | 16.0 | G | Y | C | A | LP | 6/10 | F | W |
| 59 | 210.0 | 27.50 | 34 | 10.0 | P | M | 22.0 | 20.0 | MG | Y | C | A | LP | 6/10 | F | VW |
| 60 | 170.0 | 20.60 | 26 | 7.0 | DP | M | 17.0 | 15.0 | MG | Y | C | A | A | 29/9 | F | W |
| 61 | 200.0 | 30.72 | 32 | 10.0 | P | M | 22.0 | 20.0 | G | Y | C | A | LP | 6/10 | M | VW |
| 62 | 194.0 | 19.22 | 27 | 10.0 | P | M | 17.0 | 16.0 | G | Y | T | A | LP | 2/10 | F | W |
| 63 | 210.0 | 28.66 | 39 | 12.0 | P | M | 20.0 | 16.0 | G | Y | C | A | LP | 4/10 | F | W |
| 64 | 220.0 | 32.72 | 35 | 15.0 | Y | B | 29.0 | 25.0 | G | Y | C | LP | LP | 16/10 | F | M |
| 65 | 175.0 | 17.80 | 27 | 8.5 | P | M | 16.0 | 12.0 | G | Y | T | A | MP | 3/10 | F | W |
| 66 | 210.0 | 31.32 | 40 | 15.0 | Y | B | 24.0 | 20.0 | G | Y | C | LP | LP | 12/10 | M | S |
| 67 | 185.0 | 26.17 | 26 | 10.0 | Y | M | 22.0 | 20.0 | G | Y | C | A | LP | 3/10 | F | W |
| 68 | 150.0 | 17.62 | 32 | 6.0 | Y | M | 15.0 | 14.0 | G | Y | T | A | LP | 8/10 | F | W |
| 69 | 220.0 | 31.22 | 27 | 14.0 | LP | B | 30.0 | 29.0 | DG | Y | C | LP | DP | 2/10 | M | M |
| 70 | 190.0 | 17.22 | 28 | 7.0 | Y | M | 19.0 | 18.0 | G | Y | C | A | LP | 3/10 | F | W |
| 71 | 200.0 | 19.75 | 30 | 10.0 | Y | M | 26.0 | 19.0 | G | Y | C | LP | LP | 3/10 | F | W |
| 72 | 160.0 | 12.80 | 31 | 5.5 | DP | M | 17.0 | 14.0 | G | Y | T | LP | LP | 29/9 | F | W |
| 73 | 210.0 | 27.80 | 37 | 12.0 | Y | M | 22.0 | 20.0 | G | Y | C | A | LP | 8/10 | C | M |
| 74 | 190.0 | 17.62 | 30 | 8.0 | P | M | 20.0 | 18.0 | G | Y | C | A | A | 2/10 | F | W |
| 75 | 198.0 | 29.02 | 25 | 8.0 | Y | M | 17.0 | 14.0 | G | Y | C | A | A | 2/10 | F | W |
| 76 | 210.0 | 29.72 | 38 | 10.0 | P | M | 23.0 | 20.0 | G | Y | C | DP | DP | 6/10 | M | W |
| 77 | 250.0 | 27.66 | 40 | 12.0 | P | B | 32.0 | 34.0 | G | Y | C | DP | DP | 6/10 | F | W |
| 78 | 200.0 | 28.12 | 30 | 12.0 | Y | M | 22.0 | 20.0 | G | Y | C | A | LP | 5/10 | F | W |
| 79 | 200.0 | 17.62 | 28 | 7.0 | P | M | 18.0 | 17.0 | G | Y | T | A | A | 28/9 | F | W |
| 80 | 210.0 | 19.66 | 29 | 7.0 | P | M | 20.0 | 18.0 | G | Y | C | A | A | 26/9 | F | W |
| 81 | 190.0 | 25.22 | 25 | 10.0 | DY | M | 22.0 | 20.0 | G | Y | C | A | A | 29/9 | F | W |
| 82 | 200.0 | 18.20 | 33 | 6.0 | Y | M | 26.0 | 12.0 | G | Y | C | A | A | 3/10 | F | W |
| 83 | 175.0 | 30.72 | 35 | 9.0 | Y | M | 16.0 | 16.0 | G | Y | C | A | A | 5/10 | F | W |
| 84 | 170.0 | 16.22 | 28 | 5.0 | P | M | 17.0 | 16.0 | G | Y | C | A | A | 1/10 | F | W |
| 85 | 200.0 | 15.22 | 30 | 4.0 | Y | M | 14.0 | 13.0 | G | Y | T | A | A | 5/10 | F | VW |
| 86 | 210.0 | 29.72 | 35 | 10.0 | Y | B | 30.0 | 28.0 | G | Y | C | LP | LP | 5/10 | M | S |
| 87 | 205.0 | 29.52 | 30 | 10.5 | Y | M | 21.0 | 16.0 | G | Y | C | A | A | 5/10 | F | M |
| 88 | 210.0 | 22.55 | 35 | 9.0 | P | M | 20.0 | 18.0 | G | Y | C | A | MP | 5/10 | F | M |
| 89 | 205.0 | 15.72 | 29 | 7.0 | Y | M | 26.0 | 22.0 | G | Y | C | LP | LP | 5/10 | F | W |
| 90 | 195.0 | 27.55 | 26 | 12.0 | P | M | 20.0 | 22.0 | G | Y | C | LP | DP | 5/10 | M | M |

**Table 4. Morphological characters of BC1F1 plants (BC plants only) in each combination (ARM-243B x ANN-1272)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Plant No.** | **Plant height** | **Stem girth (mm)** | **No. of leaves** | **Head diameter** | **Head colour** | **Leaf size** | **Leaf length** | **Leaf width** | **Leaf colour** | **Pollen colour** | **Leaf shape** | **Stem pig.** | **Flower opening** | **Leaf serr.** | **Leaf blist.** |
| 1 | 136.0 | 16.52 | 28.0 | 13.0 | Y | M | 16.4 | 16.0 | MG | Y | C | A | 8/10 | M | A |
| 2 | 171.0 | 18.78 | 36.0 | 11.0 | Y | M | 23.0 | 18.0 | G | Y | T | A | 8/10 | M | A |
| 3 | 168.0 | 16.50 | 28.0 | 11.0 | P | S | 15.0 | 13.0 | G | Y | C | A | 9/10 | F | W |
| 4 | 152.0 | 13.70 | 27.0 | 11.0 | Y | S | 18.0 | 13.0 | G | Y | T | A | 8/10 | F | W |

**Table 5. Morphological characters of BC1F1 plants (BC plants only) in each combination (ARM-243B x ANN-1483)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Plant No.** | **Plant height** | **Stem girth** | **No. of leaves** | **Head diameter** | **Head colour** | **Leaf size** | **Leaf length** | **Leaf width** | **Leaf colour** | **Pollen colour** | **Leaf shape** | **Flower opening** | **Leaf serr.** | **Leaf blist.** |
| 1 | 210.0 | 29.16 | 38 | 16.0 | Y | B | 33.0 | 34.0 | G | Y | C | 6/10 | M | M |
| 2 | 158.0 | 20.0 | 28 | 14.0 | Y | M | 23.0 | 22.5 | G | Y | T | 28/9 | M | A |
| 3 | 192.0 | 21.58 | 36 | 9.0 | Y | M | 22.0 | 21.0 | G | Y | T | 3/10 | M | W |
| 4 | 122.0 | 12.44 | 20 | 8.0 | Y | S | 11.5 | 9.0 | G | Y | C | 19/9 | M | A |
| 5 | 186.0 | 19.88 | 28 | 15.0 | Y | M | 21.0 | 22.5 | G | Y | C | 10/10 | M | A |
| 6 | 200.0 | 23.41 | 36 | 9.0 | P | M | 27.0 | 26.0 | G | Y | T | 6/10 | M | A |
| 7 | 246.0 | 26.84 | 38 | 10.0 | Y | B | 31.0 | 32.0 | G | Y | C | 6/10 | F | A |
| 8 | 154.0 | 15.13 | 21 | 8.0 | P | S | 15.0 | 13.0 | G | Y | C | 6/10 | F | W |
| 9 | 156.0 | 13.53 | 20 | 8.0 | Y | S | 14.0 | 12.0 | G | Y | T | 7/10 | F | W |
| 10 | 118.0 | 12.81 | 18 | 7.0 | Y | S | 11.0 | 19.0 | G | Y | T | 26/9 | F | W |
| 11 | 117.0 | 9.35 | 19 | 7.0 | Y | S | 14.5 | 13.0 | G | Y | C | 24/9 | M | M |
| 12 | 125.0 | 13.26 | 28 | 8.0 | Y | M | 20.0 | 16.0 | G | Y | T | 24/9 | F | W |
| 13 | 146.7 | 11.53 | 26 | 9.0 | P | S | 17.0 | 13.0 | G | Y | T | 14/10 | M | W |
| 14 | 176.0 | 16.25 | 34 | 7.0 | Y | M | 18.0 | 16.0 | G | Y | T | 30/9 | M | W |
| 15 | 210.0 | 24.5 | 40 | 8.0 | P | M | 22.0 | 20.0 | G | Y | C | 30/10 | M | M |
| 16 | 237.0 | 23.47 | 30 | 14.0 | P | B | 27.0 | 30.5 | G | Y | C | 6/10 | M | W |
| 17 | 156.0 | 14.64 | 26 | 7.0 | Y | S | 18.0 | 14.0 | G | Y | C | 26/9 | M | VW |
| 18 | 220.0 | 27.87 | 37 | 14.0 | Y | B | 32.0 | 30.0 | G | Y | C | 9/10 | F | W |
| 19 | 161.0 | 22.14 | 28 | 7.0 | Y | M | 19.0 | 16.0 | G | Y | T | 4/10 | M | W |
| 20 | 187.0 | 27.07 | 30 | 11.0 | Y | M | 25.0 | 24.0 | G | Y | C | 29/9 | M | W |
| 21 | 100.0 | 15.12 | 18 | 7.0 | Y | S | 14.0 | 9.0 | G | Y | T | 21/9 | F | W |
| 22 | 118.0 | 10.55 | 22 | 7.0 | Y | S | 12.0 | 10.0 | G | Y | C | 18/9 | M | W |
| 23 | 153.0 | 19.53 | 22 | 9.0 | P | M | 20.0 | 17.0 | G | Y | C | 18/9 | F | W |
| 24 | 210.0 | 26.68 | 32 | 14.0 | P | B | 30.5 | 32.0 | G | Y | C | 7/10 | M | W |
| 25 | 100.0 | 10.28 | 16 | 5.0 | P | S | 16.0 | 13.0 | G | Y | T | 18/9 | M | A |
| 26 | 210.0 | 24.20 | 34 | 15.0 | Y | M | 22.0 | 21.0 | G | Y | C | 18/9 | F | W |
| 27 | 138.0 | 16.11 | 22 | 8.0 | P | S | 14.5 | 12.0 | G | Y | T | 7/10 | M | W |
| 28 | 200.0 | 21.77 | 36 | 11.0 | Y | M | 19.5 | 16.0 | G | Y | T | 8/9 | M | W |
| 29 | 100.0 | 12.99 | 18 | 7.0 | P | S | 13.0 | 10.0 | G | Y | C | 3/10 | M | W |
| 30 | 213.0 | 28.83 | 38 | 12.0 | Y | M | 25.0 | 24.0 | G | Y | C | 13/9 | F | M |
| 31 | 140.0 | 15.29 | 20 | 9.0 | Y | M | 17.0 | 15.0 | G | Y | T | 13/9 | F | W |
| 32 | 159.0 | 13.73 | 19 | 8.0 | Y | M | 20.0 | 18.0 | G | Y | T | 18/9 | M | W |
| 33 | 168.0 | 20.20 | 24 | 11.0 | Y | M | 18.0 | 16.0 | G | Y | C | 18/9 | M | M |
| 34 | 235.0 | 27.81 | 32 | 6.0 |  | M | 26.0 | 22.0 | G | Y | T | 3/10 | M | M |
| 35 | 260.0 | 28.37 | 48 | 14.0 | Y | M | 22.5 | 21.0 | G | Y | T | 3/10 | M | W |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 36 | 185.0 | 17.09 | 24 | 8.0 | P | M | 22.0 | 20.0 | G | Y | C | 21/9 | M | W |
| 37 | 185.0 | 17.10 | 22 | 11.0 | DP | M | 18.0 | 15.0 | G | Y | T | 21/9 | M | W |
| 38 | 168.0 | 19.22 | 22 | 7.0 | P | M | 19.0 | 16.0 | G | Y | C | 22/9 | F | W |
| 39 | 185.0 | 17.08 | 20 | 9.0 | Y | M | 16.0 | 15.0 | MG | Y | A | 21/9 | F | M |
| 40 | 210.0 | 27.00 | 36 | 9.0 | P | M | 19.0 | 20.0 | G | Y | T | 6/10 | F | M |
| 41 | 211.0 | 20.97 | 30 | 11.2 | Y | M | 17.0 | 16.0 | Y | T | A | 26/9 | M | M |
| 42 | 200.0 | 26.37 | 32 | 13.3 | Y | M | 22.5 | 21.0 | Y | T | A | 6/10 | M | M |
| 43 | 155.0 | 14.97 | 28 | 8.8 | Y | M | 18.0 | 16.0 | Y | T | A | 14/9 | M | W |
| 44 | 142.0 | 12.50 | 20 | 8.4 | P | S | 15.0 | 12.0 | Y | T | A | 16/9 | M | W |
| 45 | 158.0 | 16.98 | 26 | 9.5 | DP | S | 17.0 | 16.0 | Y | T | A | 22/9 | F | W |
| 46 | 127.0 | 9.46 | 18 | 7.6 | DP | S | 18.0 | 15.0 | Y | T | A | 18/9 | M | W |
| 47 | 199.0 | 18.72 | 24 | 8.7 | P | M | 21.0 | 20.0 | Y | T | A | 28/9 | F | W |
| 48 | 225.0 | 36.00 | 34 | 8.9 | P | M | 22.0 | 20.0 | Y | T | A | 28/9 | M | W |
| 49 | 235.0 | 24.56 | 32 | 11.3 | P | M | 22.0 | 21.0 | Y | T | A | 7/10 | F | M |
| 50 | 156.0 | 23.91 | 30 | 11.3 | LP | M | 19.5 | 17.0 | Y | T | A | 5/10 | F | W |
| 51 | 144.0 | 15.91 | 20 | 10.4 | Y | M | 25.0 | 23.0 | Y | T | A | 18/9 | M | W |
| 52 | 200.0 | 29.22 | 28 | 8.6 | DP | M | 25.0 | 26.0 | Y | T | A | 4/10 | M | W |
| 53 | 138.0 | 17.22 | 18 | 9.6 | P | M | 21.0 | 20.0 | Y | C | A | 18/9 | M | M |
| 54 | 200.0 | 28.32 | 36 | 16.1 | DP | M | 22.0 | 24.0 | Y | C | A | 5/10 | M | A |
| 55 | 76.0 | 12.15 | 18 | 6.8 | Y | S | 13.0 | 14.0 | Y | C | A | 14/9 | M | W |
| 56 | 200.0 | 26.00 | 30 | 8.7 | Y | M | 24.0 | 22.0 | Y | C | A | 30/9 | M | VW |
| 57 | 168.0 | 20.21 | 28 | 10.6 | Y | M | 17.0 | 16.0 | Y | T | A | 24/9 | F | W |
| 58 | 200.0 | 26.75 | 28 | 11.2 | Y | M | 23.0 | 25.0 | Y | C | A | 21/10 | F | W |
| 59 | 185.0 | 23.40 | 30 | 8.5 | Y | M | 21.0 | 20.0 | Y | C | A | 3/10 | F | W |
| 60 | 142.0 | 12.13 | 18 | 7.4 | LP | M | 15.0 | 13.0 | Y | C | A | 19/9 | F | M |
| 61 | 166.0 | 19.37 | 28 | 8.6 | Y | M | 28.0 | 23.0 | Y | C | A | 22/9 | M | W |
| 62 | 200.0 | 24.95 | 30 | 13.2 | Y | M | 25.0 | 19.0 | Y | C | A | 1/10 | M | W |
| 63 | 210.0 | 24.03 | 28 | 13.2 | DP | B | 27.0 | 21.0 | Y | C | A | 5/10 | M | W |
| 64 | 230.0 | 31.05 | 28 | 8.4 | DP | S | 31.0 | 26.0 | Y | C | A | 30/9 | M | W |
| 65 | 140.0 | 17.90 | 28 | 13.2 | P | M | 16.0 | 14.0 | Y | C | A | 19/9 | F | W |
| 66 | 153.0 | 17.93 | 22 | 12.8 | P | M | 22.0 | 18.0 | Y | T | A | 22/9 | F | W |

**Table 6. Morphological characters of BC1F1 plants (BC plants only) in each combination (ARM-243B x ANN-1529)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Plant No.** | **Plant height** | **Stem girth** | **No. of leaves** | **Head diameter** | **Head colour** | **Leaf size** | **Leaf length** | **Leaf width** | **Leaf colour** | **Pollen colour** | **Leaf shape** | **Flower opening** | **Leaf serr.** | **Leaf blist.** |
| 1 | 200.0 | 19.01 | 30 | 11.0 | Y | S | 16.0 | 12.0 | Y | C | 5/10 | F | F | W |
| 2 | 174.0 | 19.91 | 26 | 13.2 | Y | M | 21.0 | 19.0 | Y | C | 26/9 | M | M | W |
| 3 | 142.0 | 17.28 | 29 | 9.3 | DP | M | 19.0 | 12.0 | Y | T | 19/9 | M | M | M |
| 4 | 210.0 | 24.81 | 38 | 14.3 | P | M | 29.0 | 22.0 | Y | C | 3/10 | M | M | W |
| 5 | 226.0 | 28.52 | 34 | 14.6 | Y | M | 27.0 | 23.0 | Y | C | 3/10 | M | M | W |
| 6 | 210.0 | 21.41 | 34 | 11.8 | Y | M | 19.0 | 17.0 | Y | T | 6/10 | F | F | M |
| 7 | 210.0 | 19.13 | 40 | 11.6 | P | M | 19.0 | 13.0 | Y | T | 10/10 | M | M | M |
| 8 | 245.0 | 27.07 | 36 | 10.7 | P | M | 19.0 | 22.0 | Y | C | 5/10 | M | M | A |
| 9 | 186.0 | 22.20 | 34 | 10.5 | DP | M | 24.0 | 22.0 | Y | C | 26/9 | M | M | A |
| 10 | 189.0 | 23.26 | 26 | 10.4 | DP | S | 15.0 | 12.0 | Y | C | 20/9 | F | F | W |
| 11 | 157.0 | 18.18 | 38 | 8.6 | P | S | 17.0 | 13.0 | Y | C | 20/9 | M | M | W |
| 12 | 210.0 | 27.20 | 24 | 11.3 | Y | M | 22.0 | 19.0 | Y | T | 26/9 | M | M | A |
| 13 | 166.0 | 23.74 | 46 | 11.0 | Y | M | 22.5 | 20.0 | Y | C | 12/10 | M | M | M |
| 14 | 200.0 | 23.42 | 38 | 13.0 | Y | M | 22.0 | 21.5 | Y | T | 1/10 | M | M | W |
| 15 | 220.0 | 25.75 | 28 | 12.4 | Y | M | 22.0 | 20.0 | Y | T | 3/10 | M | M | M |
| 16 | 168.0 | 17.09 | 34 | 9.5 | Y | M | 19.0 | 20.0 | Y | T | 29/9 | M | M | W |
| 17 | 210.0 | 20.05 | 38 | 7.6 | Y | S | 16.0 | 14.0 | Y | C | 6/10 | F | F | M |
| 18 | 210.0 | 17.99 | 36 | 8.6 | Y | S | 16.0 | 13.0 | Y | C | 4/10 | F | F | W |
| 19 | 230.0 | 27.84 | 40 | 11.3 | Y | M | 28.0 | 26.0 | Y | C | 12/10 | M | M | W |
| 20 | 220.0 | 24.74 | 34 | 14.0 | P | M | 27.0 | 24.0 | Y | T | 5/10 | M | M | W |
| 21 | 200.0 | 22.58 | 32 | 10.4 | Y | M | 19.0 | 14.0 | Y | C | 5/10 | M | M | M |
| 22 | 220.0 | 21.88 | 38 | 13.2 | Y | M | 17.0 | 15.0 | Y | T | 6/10 | F | F | A |
| 23 | 210.0 | 29.96 | 30 | 10.4 | Y | B | 32.0 | 29.0 | Y | C | 30/9 | M | M | W |
| 24 | 200.0 | 17.88 | 45 | 11.2 | Y | M | 22.0 | 20.0 | Y | C | 4/10 | M | M | A |
| 25 | 235.0 | 30.74 | 28 | 13.6 | Y | M | 30.0 | 27.0 | Y | T | 29/9 | M | M | M |
| 26 | 200.0 | 22.52 | 35 | 14.0 | Y | M | 25.0 | 17.0 | Y | C | 3/10 | F | F | M |
| 27 | 189.0 | 19.38 | 42 | 10.3 | Y | S | 16.0 | 12.0 | Y | C | 12/10 | M | M | W |
| 28 | 135.0 | 25.35 | 28 | 12.5 | Y | M | 28.0 | 25.0 | Y | T | 22/9 | M | M | W |
| 29 | 150.0 | 15.70 | 46 | 9.4 | P | S | 16.0 | 12.0 | Y | T | 4/10 | F | F | W |
| 30 | 225.0 | 30.83 | 46 | 14.0 | Y | M | 29.0 | 24.0 | Y | C | 6/10 | M | M | W |

**Table 7. Morphological characters of BC1F1 plants (BC plants only) in each combination (ARM-243B x ANN-1624)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Plant No.** | **Plant height** | **Stem girth (mm)** | **No. of leaves** | **Head diameter** | **Head colour** | **Leaf size** | **Leaf length** | **Leaf width** | **Leaf colour** | **Pollen colour** | **Leaf shape** | **Stem pig.** | **Petiole pig.** | **Flower opening** | **Leaf serr.** | **Leaf blist.** |
| 1 | 180.0 | 22.5 | 31 | 9.0 | Y | M | 18.0 | 13.0 | G | Y | C | A | LP | 12/10 | F | W |
| 2 | 175.0 | 23.8 | 25 | 7.0 | Y | M | 20.0 | 20.0 | G | Y | T | A | A | 11/10 | F | W |
| 3 | 200.0 | 21.6 | 30 | 10.0 | Y | M | 22.0 | 20.0 | G | Y | C | A | MP | 5/10 | M | W |
| 4 | 200.0 | 22.3 | 32 | 15.0 | Y | M | 20.0 | 21.0 | G | Y | C | A | MP | 3/10 | M | W |
| 5 | 160.0 | 21.0 | 25 | 5.5 | LP | M | 15.0 | 14.0 | LG | Y | T | A | A | 3/10 | F | M |
| 6 | 210.0 | 23.9 | 35 | 5.8 | Y | M | 17.0 | 16.0 | G | Y | C | A | LP | 7/10 | F | W |
| 7 | 200.0 | 26.6 | 34 | 16.1 | Y | M | 22.0 | 20.0 | G | Y | C | LP | MP | 3/10 | M | W |
| 8 | 195.0 | 21.1 | 36 | 9.4 | Y | M | 17.0 | 16.0 | G | Y | C | A | LP | 3/10 | F | W |
| 9 | 220.0 | 25.6 | 35 | 9.7 | P | M | 20.0 | 19.0 | M | Y | T | A | A | 5/10 | M | M |
| 10 | 200.0 | 29.9 | 32 | 12.3 | P | M | 15.0 | 14.0 | M | Y | C | DP | DP | 13/10 | M | M |
| 11 | 230.0 | 26.1 | 38 | 13.3 | P | S | 30.0 | 28.0 | DG | Y | R | DP | DP | 5/10 | M | S |
| 12 | 210.0 | 28.7 | 38 | 16.2 | Y | B | 32.0 | 30.0 | LG | Y | C | DP | DP | 5/10 | M | S |
| 13 | 200.0 | 24.0 | 37 | 15.0 | P | B | 26.0 | 20.0 | M | Y | C | LP | LP | 6/10 | F | M |
| 14 | 220.0 | 24.7 | 35 | 13.4 | P | M | 26.0 | 24.0 | G | Y | C | A | LP | 12/10 | M | S |
| 15 | 195.0 | 22.0 | 28 | 16.0 | P | M | 25.0 | 22.0 | G | Y | C | LP | DP | 14/10 | F | M |
| 16 | 215.0 | 23.0 | 35 | 17.2 | P | B | 30.0 | 29.0 | G | Y | T | LP | DP | 11/10 | M | M |

**Table 8. Morphological characters of BC1F1 plants (BC plants only) in each combination (ARM-243B x ARG-1317)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Plant No.** | **Plant height** | **Stenm girth (mm)** | **No. of leaves** | **Head diameter** | **Head colour** | **Leaf size** | **Leaf length** | **Leaf width** | **Leaf colour** | **Pollen colour** | **Leaf shape** | **Stem pig.** | **Petiole pig.** | **Flower opening** | **Leaf serr.** | **Leaf blist.** |
| 1 | 246.0 | 26.72 | 57 | 15.0 | Y | M | 22.0 | 23.0 | G | Y | C | LP | M | 22/10 | M | W |
| 2 | 185.0 | 17.56 | 31 | 9.3 | Y | S | 15.8 | 14.5 | G | Y | C | L | LP | 12/10 | F | W |
| 3 | 178.0 | 24.15 | 38 | 10.2 | Y | S | 21.6 | 18.6 | G | Y | C | M | LP | 12/10 | M | M |
| 4 | 210.0 | 29.17 | 44 | 14.3 | Y | M | 24.0 | 21.6 | G | Y | C | M | A | 12/10 | M | M |
| 5 | 230.0 | 27.28 | 44 | 10.0 | Y | M | 25.0 | 22.0 | G | Y | C | M | A | 6/10 | F | W |
| 6 | 192.0 | 24.34 | 45 | 8.6 | Y | M | 17.4 | 14.6 | G | Y | C | A | A | 6/10 | F | M |
| 7 | 143.0 | 11.22 | 27 | 9.3 | Y | S | 12.0 | 11.6 | M | Y | T | DP | P | 12/10 | F | M |
| 8 | 182.0 | 19.91 | 26 | 8.3 | P | M | 24.3 | 19.6 | M | Y | T | P | M | 12/10 | F | M |
| 9 | 224.0 | 19.77 | 43 | 13.0 | Y | M | 23.6 | 20-.7 | M | Y | T | A | LP | 23/10 | F | W |
| 10 | 155.0 | 16.56 | 27 | 10.5 | Y | M | 23.7 | 20.3 | M | Y | C | P | P | 16/10 | F | W |
| 11 | 242.0 | 29.59 | 54 | 13.0 | P | M | 20.0 | 21.6 | M | Y | T | LP | DP | 26/10 | F | M |
| 12 | 192.0 | 22.80 | 42 | 16.2 | P | M | 23.5 | 22.6 | M | Y | C | LP | P | 8/10 | M | M |
| 13 | 218.0 | 24.68 | 48 | 13.6 | P | B | 27.1 | 23.7 | LG | Y | C | M | P | 16/10 | F | W |
| 14 | 322.0 | 35.61 | 72 | 15.0 | P | B | 30.5 | 29.4 | LG | Y | C | DP | DP | 25/10 | F | M |
| 15 | 193.0 | 17.90 | 37 | 12.7 | P | S | 16.6 | 14.6 | LG | Y | T | DP | DP | 16/10 | F | W |
| 16 | 232.0 | 30.89 | 64 | 11.0 | P | M | 23.9 | 23.7 | LG | Y | C | P | P | 19/10 | F | M |
| 17 | 171.0 | 16.07 | 28 | 11.0 | LP | M | 18.0 | 19.5 | LG | Y | T | L | L | 12/10 | F | W |
| 18 | 200.0 | 24.10 | 35 | 12.0 | LP | B | 20.5 | 25.8 | LG | Y | C | A | P | 12/10 | F | VW |
| 19 | 120.0 | 14.28 | 22 | 8.2 | P | S | 16.7 | 15.4 | G | Y | T | P | P | 21/9 | F | W |
| 20 | 186.0 | 21.26 | 40 | 14.0 | P | M | 19.5 | 18.6 | G | Y | L | P | P | 4/10 | F | M |
| 21 | 181.0 | 21.72 | 36 | 14.0 | P | M | 22.4 | 23.2 | G | Y | C | M | DP | 5/10 | F | S |
| 22 | 163.0 | 16.66 | 46 | 9.2 | Y | S | 15.6 | 14.7 | G | Y | T | A | L | 15/10 | F | W |
| 23 | 200.0 | 27.18 | 38 | 15.0 | Y | B | 27.3 | 24.5 | G | Y | C | A | A | 4/10 | F | M |
| 24 | 172.0 | 21.30 | 30 | 8.5 | P | M | 17.4 | 15.7 | LG | Y | C | A | P | 16/10 | F | W |
| 25 | 160.0 | 19.33 | 33 | 9.4 | P | M | 17.2 | 16.3 | G | Y | T | A | A | 29/9 | F | W |
| 26 | 200.0 | 29.10 | 36 | 14.0 | P | M | 23.7 | 20.6 | G | Y | C | P | DP | 5/10 | M | S |
| 27 | 181.0 | 25.78 | 31 | 10.0 | Y | M | 24.3 | 23.6 | LG | Y | T | M | LP | 26/9 | M | M |
| 28 | 166.0 | 20.19 | 30 | 9.6 | P | S | 17.6 | 16.8 | G | Y | T | A | A | 3/10 | F | W |
| 29 | 200.0 | 22.25 | 32 | 13.0 | P | M | 23.6 | 25.0 | G | Y | C | A | DP | 30/9 | F | M |
| 30 | 175.0 | 22.53 | 34 | 13.0 | Y | M | 19.6 | 18.4 | G | Y | C | LP | A | 3/10 | F | M |
| 31 | 179.0 | 23.69 | 32 | 14.2 | Y | M | 20.6 | 21.4 | G | Y | C | A | A | 25/9 | F | M |
| 32 | 186.0 | 29.76 | 30 | 15.0 | Y | M | 24.8 | 23.6 | G | Y | C | A | A | 16/10 | M | M |
| 33 | 255.0 | 28.78 | 45 | 18.0 | LP | B | 29.3 | 28.5 | LG | Y | C | A | M | 28/9 | F | W |
| 34 | 230.0 | 26.13 | 40 | 16.0 | P | B | 27.4 | 26.4 | G | Y | C | LP | M | 23/9 | M | M |
| 35 | 225.0 | 21.83 | 34 | 10.2 | Y | M | 21.3 | 18.7 | M | Y | A | A | A | 23/9 | F | W |
| 36 | 213.0 | 21.42 | 34 | 13.2 | Y | M | 23.5 | 22.5 | LG | Y | T | A | A | 21/9 | M | W |
| 37 | 192.0 | 20.60 | 31 | 10.6 | Y | M | 12.6 | 18.6 | M | Y | T | A | M | 5/10 | F | W |
| 38 | 210.0 | 26.27 | 34 | 15.4 | P | M | 24.4 | 23.9 | LG | Y | C | LP | M | 6/10 | M | M |
| 39 | 225.0 | 25.64 | 42 | 13.5 | Y | M | 21.3 | 22.5 | G | Y | C | A | A | 26/9 | F | M |
| 40 | 192.0 | 21.85 | 27 | 12.4 | Y | M | 20.0 | 19.3 | LG | Y | T | A | LP | 22/9 | F | W |
| 41 | 174.0 | 19.25 | 30 | 11.0 | LY | M | 22.0 | 20.0 | G | Y | C | A | A | 21/9 | M | M |
| 42 | 146.0 | 12.60 | 23 | 8.2 | LY | M | 14.0 | 13.0 | G | Y | T | A | A | 21/9 | F | M |
| 43 | 140.0 | 14.55 | 25 | 6.5 | Y | S | 12.0 | 10.0 | LG | Y | T | A | A | 21/9 | F | M |
| 44 | 181.0 | 21.25 | 27 | 11.2 | P | M | 21.0 | 20.0 | LG | Y | R | A | A | 2/9 | M | W |
| 45 | 166.0 | 17.98 | 26 | 10.4 | Y | M | 16.0 | 15.0 | LG | Y | C | P | A | 23/9 | F | M |
| 46 | 200.0 | 25.73 | 45 | 10.3 | Y | S | 19.0 | 18.0 | LG | Y | C | LP | A | 25/9 | F | M |
| 47 | 192.0 | 23.13 | 27 | 11.4 | P | M | 16.0 | 15.0 | MG | Y | C | A | M | 27/9 | F | W |
| 48 | 148.0 | 12.27 | 23 | 8.4 | Y | S | 14.0 | 13.0 | G | Y | T | A | A | 22/9 | F | M |
| 49 | 182.0 | 17.81 | 28 | 12.0 | LP | M | 19.0 | 18.0 | G | Y | C | A | P | 21/9 | F | M |
| 50 | 154.0 | 15.26 | 26 | 10.2 | LP | S | 16.0 | 15.0 | G | Y | C | LP | P | 25/9 | F | W |
| 51 | 155.0 | 16.53 | 19 | 8.2 | Y | M | 18.0 | 17.0 | G | Y | T | P | A | 7/10 | F | M |
| 52 | 174.0 | 12.71 | 33 | 6.4 | P | M | 15.0 | 14.0 | G | Y | C | P | P | 5/10 | F | M |
| 53 | 200.0 | 17.15 | 32 | 7.5 | Y | M | 18.0 | 17.0 | G | Y | T | LP | P | 15/10 | F | M |
| 54 | 135.0 | 15.51 | 31 | 9.5 | Y | M | 16.0 | 15.0 | LG | Y | T | LP | LP | 16/10 | F | F |
| 55 | 240.0 | 30.30 | 58 | 13.2 | P | B | 27.0 | 28.0 | G | Y | C | A | M | 23/9 | F | W |
| 56 | 250.0 | 39.85 | 61 | 14.5 | Y | B | 30.0 | 30.0 | LG | Y | C | A | LP | 13/10 | F | M |

**Table 9. Morphological characters of BC1F1 plants (BC plants only) in each combination (ARM-243B x ARG-1575)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Plant No.** | **Plant height** | **Stem girth (mm)** | **No. of leaves** | **Head diameter** | **Head colour** | **Leaf size** | **Leaf length** | **Leaf width** | **Leaf colour** | **Pollen colour** | **Leaf shape** | **Stem pig.** | **Petiole pig.** | **Flower opening** | **Leaf serr.** | **Leaf blist.** |
| 1 | 257.0 | 36.42 | 38 | 12.3 | P | B | 32.0 | 29.0 | G | Y | C | P | LP | 15/10 | F | M |
| 2 | 178.0 | 19.48 | 29 | 9.2 | P | M | 29.0 | 26.0 | G | Y | T | A | A | 26/9 | F | M |
| 3 | 160.0 | 12.56 | 30 | 4.0 | Y | S | 14.3 | 13.0 | G | Y | T | A | A | 3/10 | F | W |
| 4 | 195.0 | 20.86 | 32 | 7.3 | P | M | 25.0 | 23.3 | G | Y | C | L | A | 7/10 | M | M |
| 5 | 237.0 | 28.49 | 42 | 10.4 | Y | M | 27.0 | 25.0 | G | Y | C | A | A | 4/10 | F | W |
| 6 | 200.0 | 25.21 | 46 | 4.3 | Y | M | 22.0 | 20. | G | Y | C | A | A | 6/10 | F | M |
| 7 | 145.0 | 13.44 | 25 | 4.0 | O | S | 14.3 | 12.0 | G | Y | T | A | A | 29/9 | F | W |
| 8 | 220.0 | 27.12 | 46 | 12.0 | P | M | 28.0 | 23.4 | G | Y | T | P | AP | 6/10 | F | M |
| 9 | 180.0 | 25.19 | 30 | 9.0 | Y | M | 27.3 | 27.0 | G | Y | C | L | A | 9/9 | F | M |
| 10 | 172.0 | 20.48 | 43 | 6.3 | Y | M | 16.0 | 13.0 | G | Y | C | P | A | 29/9 | F | W |
| 11 | 210.0 | 33.99 | 53 | 11.5 | P | M | 29.3 | 26.0 | G | Y | C | A | P | 5/10 | F | W |
| 12 | 171.0 | 21.26 | 36 | 5.6 | O | S | 15.0 | 12.0 | G | Y | T | P | P | 22/10 | M | W |
| 13 | 232.0 | 26.96 | 55 | 11.3 | P | M | 25.3 | 25.0 | LG | Y | C | P | A | 22/10 | F | VW |
| 14 | 245.0 | 37.17 | 59 | 7.4 | P | M | 22.5 | 20.0 | G | Y | C | A | A | 12/10 | F | W |
| 15 | 240.0 | 36.15 | 57 | 16.5 | Y | M | 28.4 | 22.0 | G | Y | C | A | L | 15/10 | F | W |
| 16 | 179.0 | 19.29 | 37 | 10/3 | Y | S | 14.3 | 15.0 | MG | Y | C | A | A | 24/10 | M | W |
| 17 | 180.0 | 18.90 | 43 | 11.5 | Y | M | 17.0 | 15.0 | G | Y | T | P | P | 14/10 | F | M |
| 18 | 191.0 | 19.92 | 74 | 10/0 | Y | M | 20.0 | 17.0 | G | Y | T | P | P | 28/9 | M | W |
| 19 | 300.0 | 28.61 | 35 | 16.3 | Y | B | 30.3 | 28.0 | G | Y | C | P | P | 23/10 | C | M |
| 20 | 200.0 | 23.43 | 40 | 9.0 | P | M | 23.0 | 20.0 | G | Y | C | P | P | 10/10 | F | W |
| 21 | 200.0 | 19.51 | 30 | 4.5 | Y | M | 20.3 | 15.0 | G | Y | T | A | A | 11/10 | F | M |
| 22 | 150.0 | 20.47 | 29 | 6/3 | Y | M | 22.0 | 18.0 | G | Y | T | A | P | 15/9 | M | M |
| 23 | 192.0 | 18,10 | 40 | 6/7 | O | M | 19.0 | 17.0 | G | Y | C | A | MP | 29/9 | F | M |
| 24 | 180.0 | 14.81 | 25 | 5.7 | DP | M | 36.0 | 25.0 | G | Y | T | LP | A | 26/9 | M | W |
| 25 | 159.0 | 15.12 | 35 | 10.3 | Y | M | 23.0 | 22.0 | G | Y | C | A | LP | 24/9 | M | M |
| 26 | 200.0 | 21.70 | 36 | 5.6 | Y | M | 22.0 | 30.0 | G | Y | C | LP | A | 24/9 | F | W |
| 27 | 230.0 | 20.90 | 40 | 6.5 | Y | M | 18.0 | 16.0 | G | Y | C | A | LP | 14/9 | M | M |
| 28 | 210.0 | 30.79 | 46 | 14.3 | MP | M | 27.0 | 26.2 | G | Y | C | P | P | 4/10 | F | W |
| 29 | 255.0 | 32.60 | 40 | 15.5 | P | M | 25.0 | 24.0 | G | Y | T | P | A | 15/10 | F | W |
| 30 | 230.0 | 23.25 | 45 | 12.3 | P | M | 22.0 | 20.0 | G | Y | C | A | P | 23/10 | F | W |
| 31 | 240.0 | 33.02 | 47 | 15.3 | Y | M | 25.0 | 22.0 | G | Y | C | P | P | 14/10 | F | M |
| 32 | 244.0 | 33.59 | 45 | 10.3 | LP | M | 24.0 | 20.0 | G | Y | C | LP | LP | 10/10 | C | M |
| 33 | 230.0 | 31.75 | 57 | 11.5 | P | B | 32.0 | 30.0 | G | Y | C | P | P | 8/10 | M | P |
| 34 | 245.0 | 37.93 | 61 | 17.4 | Y | M | 28.0 | 26.0 | G | Y | C | A | A | 14/10 | F | S |
| 35 | 240.0 | 40.22 | 34 | 10,3 | P | B | 30.0 | 28.0 | G | Y | C | A | LP | 13/10 | M | M |
| 36 | 165.0 | 20.48 | 50 | 5.7 | Y | M | 20.0 | 19.3 | G | Y | C | P | L | 8/10 | F | M |
| 37 | 245.0 | 28.05 | 44 | 11.5 | P | M | 25.0 | 22.0 | G | Y | C | A | A | 10/10 | M | W |
| 38 | 200.0 | 27.79 | 42 | 7.0 | P | S | 17.0 | 16.5 | G | Y | T | P | A | 7/10 | F | W |
| 39 | 215.0 | 28.50 | 56 | 12.0 | P | M | 26.1 | 20.6 | G | Y | C | A | A | 7/10 | F | M |
| 40 | 240.0 | 15.43 | 25 | 5.4 | P | M | 20.2 | 19.0 | G | Y | T | A | A | 27/10 | F | W |
| 41 | 210.0 | 24.80 | 60 | 10.0 | P | M | 20.0 | 17.0 | G | Y | C | P | P | 17/10 | M | W |
| 42 | 225.0 | 26.50 | 50 | 8.4 | Y | M | 20.0 | 18.0 | G | Y | T | A | LP | 16/10 | F | VW |
| 43 | 235.0 | 32.27 | 47 | 15.3 | P | B | 32.0 | 28.0 | G | Y | C | P | DP | 9/10 | M | W |
| 44 | 210.0 | 29.16 | 50 | 9.5 | Y | B | 30.0 | 29.0 | G | Y | C | A | A | 13/10 | F | M |
| 45 | 200.0 | 39.48 | 33 | 15.3 | P | B | 29.0 | 34.0 | G | Y | T | A | LP | 8/10 | F | M |
| 46 | 170.0 | 18.46 | 36 | 8.6 | Y | S | 17.0 | 18.0 | G | Y | C | A | A | 7/10 | C | S |
| 47 | 200.0 | 30.12 | 36 | 10.7 | P | B | 35.0 | 34.0 | G | Y | C | A | P | 29/9 | F | M |
| 48 | 210.0 | 22.78 | 50 | 11.4 | P | M | 17.0 | 16.0 | G | Y | C | A | A | 8/10 | F | W |
| 49 | 240.0 | 28.13 | 53 | 10.3 | Y | M | 18.0 | 17.0 | G | Y | C | A | A | 7/10 | M | M |
| 50 | 130.0 | 11.93 | 26 | 6.4 | Y | S | 13.0 | 12.0 | G | Y | C | P | P | 29/9 | M | W |
| 51 | 170.0 | 18.50 | 32 | 12.4 | P | S | 15.0 | 13.0 | G | Y | C | M | DP | 8/10 | M | S |
| 52 | 195.0 | 23.82 | 35 | 12.6 | Y | M | 22.0 | 20.0 | G | Y | C | A | LP | 14/10 | F | M |
| 53 | 232.0 | 35.33 | 53 | 15.0 | P | B | 28.0 | 22.0 | G | Y | C | P | DP | 24/10 | F | W |
| 54 | 200.0 | 24.90 | 32 | 9.5 | P | M | 23.0 | 27.0 | G | Y | T | A | A | 10/10 | M | M |
| 55 | 195.0 | 34.62 | 36 | 5.7 | Y | M | 19.0 | 18.0 | G | Y | T | LP | A | 15/10 | F | W |
| 56 | 267.0 | 32.45 | 37 | 15.0 | P | B | 32.0 | 30.0 | G | Y | R | M | M | 15/10 | F | M |
| 57 | 264.0 | 29.90 | 56 | 12.0 | Y | B | 30.0 | 29.0 | G | Y | T | A | A | 3/10 | M | M |
| 58 | 165.0 | 15.49 | 44 | 6.5 | P | S | 15.0 | 12.0 | G | Y | T | P | P | 9/10 | F | W |
| 59 | 210.0 | 30.50 | 35 | 14.0 | P | B | 28.0 | 32.0 | G | Y | C | P | P | 7/10 | F | S |
| 60 | 215.0 | 26.90 | 52 | 5.9 | Y | M | 25.0 | 22.0 | G | Y | C | LP | A | 13/10 | M | M |
| 61 | 240.0 | 37.11 | 60 | 14.0 | P | B | 28.0 | 27.0 | G | Y | C | A | DP | 16/10 | C | M |
| 62 | 166.0 | 21.83 | 26 | 6.8 | Y | M | 22.0 | 20.0 | LG | Y | T | A | A | 13/10 | M | S |
| 63 | 168.0 | 17.46 | 43 | 8.4 | Y | M | 27.0 | 16.0 | G | Y | T | P | A | 7/10 | M | W |
| 64 | 200.0 | 24.40 | 42 | 8.3 | P | B | 25.0 | 23.0 | G | Y | C | A | P | 15/10 | M | M |
| 65 | 195.0 | 18.92 | 30 | 4.7 | P | M | 20.0 | 18.0 | G | Y | T | A | A | 29/9 | F | M |
| 66 | 230.0 | 28.27 | 57 | 12.8 | Y | M | 20.0 | 18.0 | G | Y | C | LP | A | 21/10 | M | W |
| 67 | 210.0 | 28.48 | 55 | 8.5 | P | M | 22.0 | 18.0 | G | Y | T | P | LP | 8/10 | F | W |
| 68 | 220.0 | 28.93 | 57 | 10.4 | P | M | 22.0 | 24.0 | G | Y | C | M | P | 3/10 | M | M |
| 69 | 210.0 | 24.23 | 41 | 10.3 | LP | M | 22.0 | 25.0 | G | Y | C | M | M | 17/10 | F | S |

**Table 10. Morphological characters of BC1F1 plants (BC plants only) in each combination (ARM-243B x ARG-2126)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Plant No.** | **Plant height** | **Stem girth (mm)** | **No. of leaves** | **Head diameter** | **Head colour** | **Leaf size** | **Leaf length** | **Leaf width** | **Leaf colour** | **Pollen colour** | **Leaf shape** | **Stem pig.** | **Petiole pig.** | **Flower opening** | **Leaf serr.** | **Leaf blist.** |
| 1 | 200.0 | 24.05 | 50 | 10.0 | DP | M | 20.0 | 21.0 | G | Y | C | DP | DP | 15/10 | M | VW |
| 2 | 150.0 | 17.66 | 25 | 6.4 | LP | S | 18.0 | 16.0 | G | Y | T | A | A | 5/10 | F | W |
| 3 | 185.0 | 25.16 | 47 | 11.2 | Y | M | 20.0 | 19.0 | G | Y | T | A | A | 12/10 | M | W |
| 4 | 235.0 | 24.37 | 48 | 9.4 | Y | M | 20.0 | 22.0 | G | Y | C | A | A | 12/10 | M | M |
| 5 | 255.0 | 26.93 | 50 | 12.2 | P | M | 22.0 | 25.0 | LG | Y | C | LP | MP | 22/10 | M | W |
| 6 | 170.0 | 18.85 | 45 | 13.4 | DP | M | 22.0 | 20.0 | G | Y | C | MP | MP | 12/10 | F | W |
| 7 | 175.0 | 16.52 | 36 | 10.5 | Y | M | 20.0 | 22.0 | G | Y | T | A | LP | 8/10 | M | S |
| 8 | 155.0 | 14.86 | 28 | 10.3 | Y | S | 15.0 | 14.0 | G | Y | T | A | A | 5/10 | F | M |
| 9 | 254.0 | 33.27 | 51 | 15.2 | P | M | 23.0 | 24.0 | G | Y | C | LP | MP | 12/10 | F | W |
| 10 | 232.0 | 27.92 | 55 | 9.4 | P | M | 22.0 | 20.0 | G | Y | C | A | MP | 12/10 | F | W |
| 11 | 150.0 | 21.68 | 25 | 5.3 | Y | S | 18.0 | 17.0 | G | Y | C | A | A | 30/9 | F | W |
| 12 | 260.0 | 30.74 | 55 | 12.3 | DP | M | 22.0 | 20.0 | LG | Y | C | LP | MP | 16/10 | M | M |
| 13 | 230.0 | 25.06 | 38 | 12.3 | Y | M | 25.0 | 23.0 | G | Y | T | LP | LP | 8/10 | F | W |
| 14 | 210.0 | 20.79 | 40 | 10.0 | DP | M | 19.0 | 20.0 | G | Y | C | DP | DP | 20/10 | F | W |
| 15 | 280.0 | 31.10 | 59 | 12.2 | P | B | 22.0 | 30.0 | G | Y | C | LP | DP | 29/9 | M | M |
| 16 | 180.0 | 16.05 | 44 | 9.4 | O | M | 18.0 | 17.0 | G | Y | C | A | A | 29/9 | F | W |
| 17 | 220.0 | 20.20 | 49 | 7.3 | Y | M | 20.0 | 18.0 | G | Y | T | A | A | 27/9 | M | W |
| 18 | 220.0 | 26.87 | 40 | 12.5 | DP | M | 23.0 | 21.0 | G | Y | T | A | A | 18/10 | F | W |
| 19 | 280.0 | 33.78 | 45 | 16.3 | P | M | 22.0 | 21.0 | G | Y | C | MP | DP | 21/9 | F | S |
| 20 | 200.0 | 29.29 | 40 | 12.3 | Y | B | 28.0 | 32.0 | G | Y | C | A | A | 18/10 | M | M |
| 21 | 200.0 | 42.41 | 50 | 14.3 | P | M | 25.0 | 29.0 | G | Y | C | DP | DP | 18/10 | C | M |
| 22 | 240.0 | 33.11 | 58 | 9.5 | Y | M | 28.0 | 24.0 | G | Y | C | MP | MP | 18/10 | M | W |
| 23 | 250.0 | 30.09 | 50 | 10.0 | Y | M | 25.0 | 28.0 | G | Y | C | A | LP | 20/10 | F | S |
| 24 | 225.0 | 30.99 | 43 | 12.2 | P | M | 22.0 | 20.0 | G | Y | C | P | DP | 15/10 | F | S |
| 25 | 170.0 | 13.01 | 42 | 7.6 | O | M | 18.0 | 16.0 | G | Y | C | A | A | 26/9 | F | W |
| 26 | 255.0 | 33.15 | 39 | 9.4 | Y | M | 13.0 | 18.0 | G | Y | C | A | LP | 19/10 | M | M |
| 27 | 240.0 | 32.60 | 42 | 13.2 | P | B | 30.0 | 32.0 | G | Y | C | A | A | 7/10 | F | W |
| 28 | 260.0 | 33.93 | 49 | 7.6 | P | M | 27.0 | 26.0 | G | Y | C | A | A | 14/10 | F | M |
| 29 | 262.0 | 27.98 | 37 | 12.0 | Y | M | 25.0 | 27.0 | G | Y | C | A | P | 13/10 | F | M |
| 30 | 230.0 | 30.94 | 40 | 5.7 | P | M | 28.0 | 27.0 | G | Y | T | A | A | 8/10 | F | M |
| 31 | 267.0 | 24.76 | 38 | 9.5 | P | M | 22.0 | 23.0 | G | Y | T | DP | DP | 16/10 | F | W |
| 32 | 242.0 | 30.72 | 40 | 13.0 | P | B | 22.0 | 27.0 | G | Y | C | P | DP | 15/10 | M | S |
| 33 | 190.0 | 24.73 | 37 | 9.3 | P | M | 25.0 | 23.0 | G | Y | T | LP | LP | 3/10 | F | M |
| 34 | 200.0 | 20.05 | 42 | 8.5 | P | M | 16.0 | 15.0 | G | Y | C | P | P | 13/10 | F | M |
| 35 | 240.0 | 30.22 | 52 | 10.2 | Y | M | 25.0 | 24.0 | G | Y | C | A | P | 14/10 | F | M |
| 36 | 220.0 | 23.40 | 49 | 8.6 | Y | M | 25.0 | 24.0 | G | Y | T | A | A | 16/10 | F | S |
| 37 | 160.0 | 13.10 | 26 | 4.7 | Y | M | 15.0 | 18.0 | G | Y | T | A | A | 27/9 | F | M |
| 38 | 240.0 | 22.45 | 54 | 10.5 | Y | B | 25.0 | 24.0 | G | Y | C | A | A | 24/10 | M | W |
| 39 | 245.0 | 30.15 | 38 | 8.4 | Y | B | 28.0 | 30.0 | G | Y | C | A | A | 16/10 | M | S |
| 40 | 200.0 | 19.75 | 40 | 4.9 | O | M | 20.0 | 18.0 | G | Y | C | A | LP | 8/10 | F | M |
| 41 | 250.0 | 29.61 | 50 | 13.0 | Y | M | 25.0 | 20.0 | G | Y | C | A | LP | 8/10 | F | M |
| 42 | 300.0 | 34.02 | 56 | 13.0 | Y | B | 28.0 | 26.0 | G | Y | C | A | LP | 12/10 | F | M |
| 43 | 200.0 | 30.01 | 53 | 6.4 | DP | M | 16.0 | 15.0 | G | Y | C | A | A | 22/10 | F | M |
| 44 | 200.0 | 20.33 | 26 | 4.7 | P | M | 20.0 | 18.0 | G | Y | T | A | A | 27/9 | F | M |
| 45 | 210.0 | 24.32 | 51 | 9.6 | P | M | 17.0 | 16.0 | G | Y | C | A | P | 14/10 | F | W |
| 46 | 200.0 | 22.18 | 36 | 7.6 | DP | M | 20.0 | 18.0 | G | Y | T | A | P | 8/10 | F | W |
| 47 | 210.0 | 24.75 | 38 | 12.0 | Y | M | 20.0 | 18.0 | G | Y | C | P | P | 3/10 | F | W |
| 48 | 220.0 | 25.72 | 38 | 10.4 | O | M | 27.0 | 28.0 | G | Y | C | P | A | 16/10 | F | M |
| 49 | 220.0 | 27.26 | 40 | 7.5 | Y | M | 18.0 | 20.0 | G | Y | C | A | A | 8/10 | F | M |
| 50 | 195.0 | 18.38 | 30 | 7.5 | DP | S | 12.0 | 10.0 | G | Y | C | P | LP | 16/10 | F | M |
| 51 | 270.0 | 21.94 | 45 | 10.3 | P | M | 25.0 | 24.0 | G | Y | C | LP | DP | 29/9 | M | W |
| 52 | 190.0 | 20.16 | 41 | 6.5 | P | M | 16.0 | 18.0 | G | Y | C | LP | A | 22/10 | F | W |
| 53 | 200.0 | 20.92 | 35 | 13.0 | LP | M | 28.0 | 26.0 | G | Y | C | LP | DP | 8/10 | F | M |
| 54 | 220.0 | 21.76 | 49 | 10.3 | DP | S | 15.0 | 14.0 | G | Y | C | A | P | 6/10 | M | M |
| 55 | 290.0 | 26.15 | 40 | 8.5 | P | M | 23.0 | 25.0 | G | Y | T | LP | P | 6/10 | M | S |
| 56 | 220.0 | 26.99 | 47 | 13.0 | Y | M | 19.0 | 18.0 | DG | Y | C | P | P | 20/10 | F | M |
| 57 | 160.0 | 21.57 | 28 | 9.5 | DP | S | 15.0 | 16.0 | G | Y | C | A | A | 23/10 | M | W |
| 58 | 200.0 | 17.61 | 35 | 5.9 | P | S | 15.0 | 16.0 | G | Y | C | P | LP | 30/9 | F | VW |
| 59 | 190.0 | 24.24 | 35 | 7.5 | Y | M | 28.0 | 26.0 | G | Y | C | A | A | 21/10 | F | M |
| 60 | 230.0 | 23.61 | 38 | 9.4 | P | M | 25.0 | 24.0 | G | Y | C | P | P | 11/10 | F | M |
| 61 | 190.0 | 23.10 | 35 | 8.6 | Y | M | 18.0 | 15.0 | G | Y | C | A | A | 12/10 | F | S |
| 62 | 200.0 | 25.08 | 35 | 4.9 | DP | M | 28.0 | 27.0 | LG | Y | C | A | A | 3/10 | F | W |
| 63 | 290.0 | 17.26 | 38 | 5.7 | Y | S | 15.0 | 14.0 | LG | Y | C | A | A | 8/10 | F | W |
| 64 | 210.0 | 31.64 | 39 | 12.0 | Y | M | 28.0 | 26.0 | G | Y | C | A | A | 8/10 | M | M |
| 65 | 220.0 | 29.71 | 39 | 11.3 | P | S | 20.0 | 18.0 | G | Y | C | A | P | 17/10 | F | M |
| 66 | 170.0 | 24.79 | 38 | 16.0 | P | S | 16.0 | 17.0 | G | Y | C | A | A | 3/10 | F | M |
| 67 | 257.0 | 29.38 | 38 | 7.5 | P | M | 25.0 | 24.0 | G | Y | C | P | P | 11/10 | M | W |
| 68 | 200.0 | 24.25 | 44 | 6.8 | P | M | 20.0 | 18.0 | G | Y | C | A | P | 10/10 | M | M |