

Typical mating	Number of types	
$AABB \times Ab.aB$	4	$N_{n+1} = \frac{1}{8}R + \frac{1}{8}(\alpha\beta + \gamma\delta)(U+V) + \frac{1}{8}\alpha\beta\gamma\delta(W+2X+Y).$
$AAbb \times AB.ab$	4	$P_{n+1} = \frac{1}{8}S + \frac{1}{8}(\alpha\beta + \gamma\delta)(U+V) + \frac{1}{8}\alpha\beta\gamma\delta(W+2X+Y).$
$AABb \times AABb$	4	$Q_{n+1} = 2G + \frac{1}{2}(H+I+J+K) + \frac{1}{4}(\alpha^2 + \gamma^2)(L+M) + \frac{1}{4}(\beta^2 + \delta^2)(N+P) + \frac{1}{4}Q + \frac{1}{8}(R+S+T) + \frac{1}{8}(\alpha^2 + \alpha\beta + \beta^2 + \gamma^2 + \gamma\delta + \delta^2)(U+V) + \frac{1}{16}(\alpha\delta + \beta\gamma)^2(W+Y) + \frac{1}{8}(\alpha\gamma + \beta\delta)^2X.$
$AABb \times AaBB$	4	$R_{n+1} = \frac{1}{4}(\beta^2 + \delta^2)L + \frac{1}{4}(\alpha^2 + \gamma^2)N + \frac{1}{8}R + \frac{1}{8}(\beta + \delta)U + \frac{1}{8}(\alpha + \gamma)V + \frac{1}{16}(\alpha\delta + \beta\gamma)^2(W+Y) + \frac{1}{8}(\alpha\gamma + \beta\delta)^2X.$
$AABb \times Aabb$	4	$S_{n+1} = \frac{1}{4}(\beta^2 + \delta^2)M + \frac{1}{4}(\alpha^2 + \gamma^2)P + \frac{1}{8}S + \frac{1}{8}(\alpha + \gamma)U + \frac{1}{8}(\beta + \delta)V + \frac{1}{16}(\alpha\delta + \beta\gamma)^2(W+Y) + \frac{1}{8}(\alpha\gamma + \beta\delta)^2X.$
$AABb \times aaBb$	4	$T_{n+1} = \frac{1}{8}(\alpha\beta + \gamma\delta)(U+V) + \frac{1}{16}(\alpha\delta + \beta\gamma)^2(W+Y) + \frac{1}{8}(\alpha\gamma + \beta\delta)^2X.$
$AABb \times AB.ab$	8	$U_{n+1} = \frac{1}{2}J + \frac{1}{4}(\alpha\beta + \gamma\delta)(L+N) + \frac{1}{8}(S+T) + \frac{1}{8}(\alpha + \gamma)U + \frac{1}{8}(\beta + \delta)V + \frac{1}{8}\alpha\gamma(\beta\gamma + \alpha\delta)W + \frac{1}{8}(\alpha\gamma + \beta\delta)(\alpha\delta + \beta\gamma)X + \frac{1}{8}\beta\delta(\beta\gamma + \alpha\delta)Y.$
$AABb \times Ab.aB$	8	$V_{n+1} = \frac{1}{2}K + \frac{1}{4}(\alpha\beta + \gamma\delta)(M+P) + \frac{1}{8}(R+T) + \frac{1}{8}(\beta + \delta)U + \frac{1}{8}(\alpha + \gamma)V + \frac{1}{8}\beta\delta(\beta\gamma + \alpha\delta)W + \frac{1}{8}(\alpha\gamma + \beta\delta)(\alpha\delta + \beta\gamma)X + \frac{1}{8}\alpha\gamma(\beta\gamma + \alpha\delta)Y.$
$AB.ab \times AB.ab$	1	$W_{n+1} = 2(E+J) + \frac{1}{2}(\alpha^2 + \gamma^2)L + \frac{1}{2}(\beta^2 + \delta^2)N + \frac{1}{4}(S+T) + \frac{1}{4}(\alpha^2 + \gamma^2)U + \frac{1}{4}(\beta^2 + \delta^2)V + \frac{1}{4}\alpha^2\gamma^2W + \frac{1}{4}(\alpha^2\delta^2 + \beta^2\gamma^2)X + \frac{1}{4}\beta^2\delta^2Y.$
$AB.ab \times Ab.aB$	2	$X_{n+1} = \frac{1}{2}T + \frac{1}{2}(\alpha\beta + \gamma\delta)(U+V) + \frac{1}{2}\alpha\beta\gamma\delta(W+2X+Y).$
$Ab.aB \times Ab.aB$	1	$Y_{n+1} = 2(F+K) + \frac{1}{2}(\alpha^2 + \gamma^2)M + \frac{1}{2}(\beta^2 + \delta^2)P + \frac{1}{4}(R+T) + \frac{1}{4}(\beta^2 + \delta^2)U + \frac{1}{4}(\alpha^2 + \gamma^2)V + \frac{1}{4}\beta^2\delta^2W + \frac{1}{4}(\alpha^2\delta^2 + \beta^2\gamma^2)X + \frac{1}{4}\alpha^2\gamma^2Y.$