

Creating an F₁ and F₂ Generation

"Parent" Group or P_i generation

phenotype: yellow or green leaves

Dominant: yellow = Y

Recessive: green = y

possible Allele

YY = yellow

Yy = yellow

yy = green

Parent Group: heterozygous crossed with a green leaf plant

	Y	y
y	Yy	yy
y	Yy	yy

P_i

50% heterozygous yellow (Yy)

50% homozygous green (yy)

F₁ generation is the crossing of two of the offspring from the Parent Group. Choosing to cross Yy and Yy

	Y	y
Y	YY	Yy
y	Yy	yy

50% heterozygous yellow (Yy)

25% homozygous yellow (YY)

25% homozygous green (yy)

F₂ generation is the crossing of two of the offspring from the F₁ generation. Choosing to cross YY and Yy

	Y	Y
Y	YY	YY
y	Yy	Yy

50% heterozygous yellow (Yy)

50% homozygous yellow (YY)