

Maintaining Our Yield

Plant Chart

Plant 1

G + E = P

____ + ____ = ____

Plant 2

____ + ____ = ____

Plant 3

____ + ____ = ____

Plant 4

____ + ____ = ____

Plant 5

____ + ____ = ____

Choose the two plants with the highest P value to cross.

Reflection

1. Are there any plants with the desirable traits (have all 10 alleles)?
2. How does chance play a role in the simulation? In plant breeding?

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F1 generation

Plant 1

G + E = P

1 2 3 4 5

_____ + _____ = _____

Plant 2

1 2 3 4 5

_____ + _____ = _____

Plant 3

1 2 3 4 5

_____ + _____ = _____

Plant 4

1 2 3 4 5

_____ + _____ = _____

Plant 5

1 2 3 4 5

_____ + _____ = _____

Reflection

1. Did you find a plant with the 10 alleles for the favorable traits?
2. If not, what is your next step?

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F2 Generation

Plant 1

1 2 3 4 5

G + E = P

_____ + _____ = _____

Plant 2

1 2 3 4 5

_____ + _____ = _____

Plant 3

1 2 3 4 5

_____ + _____ = _____

Plant 4

1 2 3 4 5

_____ + _____ = _____

Plant 5

1 2 3 4 5

_____ + _____ = _____