



Hypothesis Testing

Null and Alternative Hypothesis

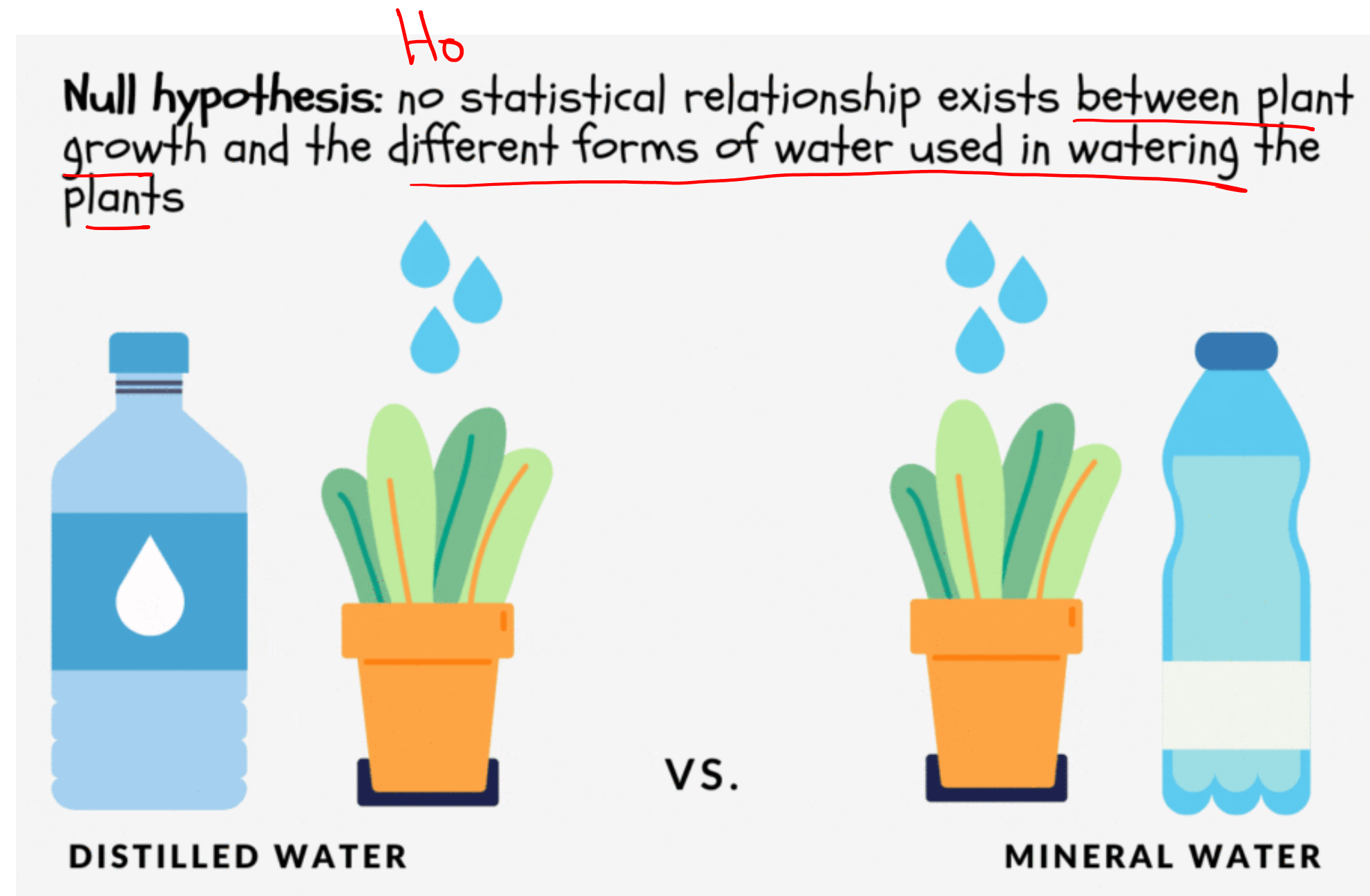
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Null Hypothesis



- A hypothesis that is deemed to be true (until proved wrong) by experimental results.
- Denoted by H_0



Alternative Hypothesis

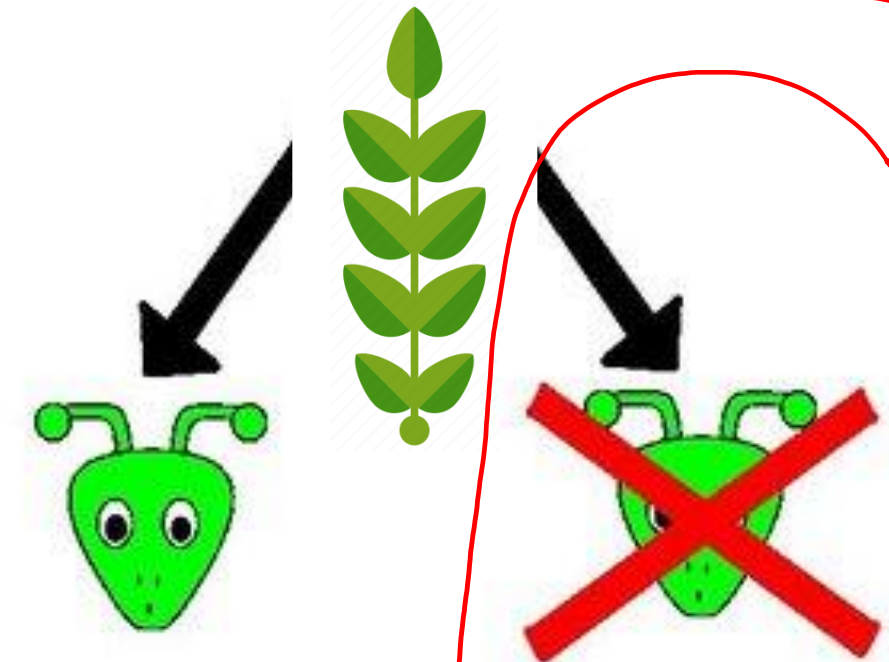


- The alternative or experimental hypothesis reflects that there will be an observed effect for our experiment.
- Denoted by either H_a or by H_1 .

$H_1: \checkmark$
 $H_2: \checkmark$
 $H_3: \checkmark$
 $H_4: \checkmark$

H_0 ✗

Q. What caused damage to the crops?



Alternate Hypothesis

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Pest damaged the crops,
slowly due to inadequate
use of pesticide.

Null Hypothesis

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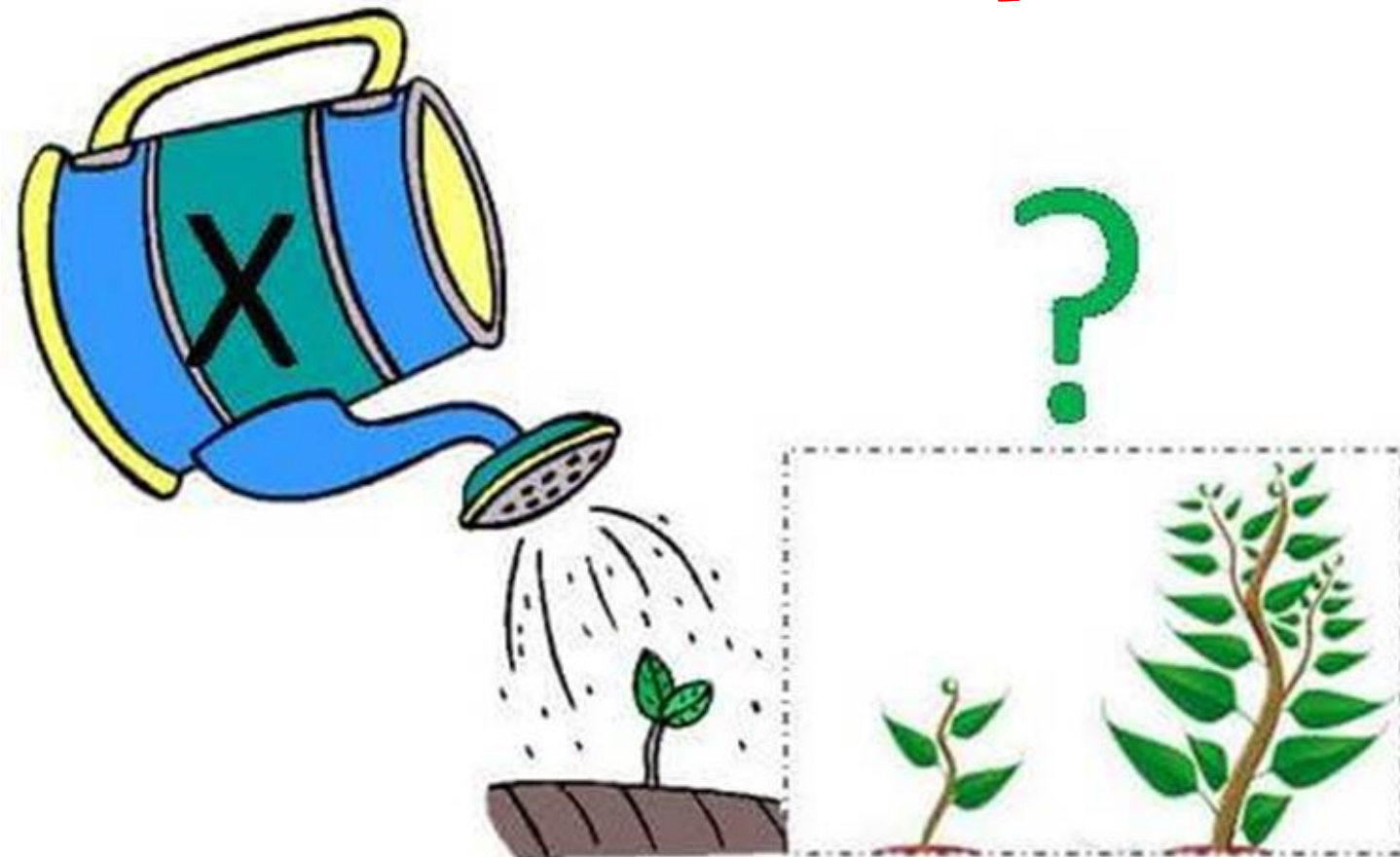
Pests didn't
damage the crops.

Example

Effect of Bio-fertilizer 'x' on Plant Growth

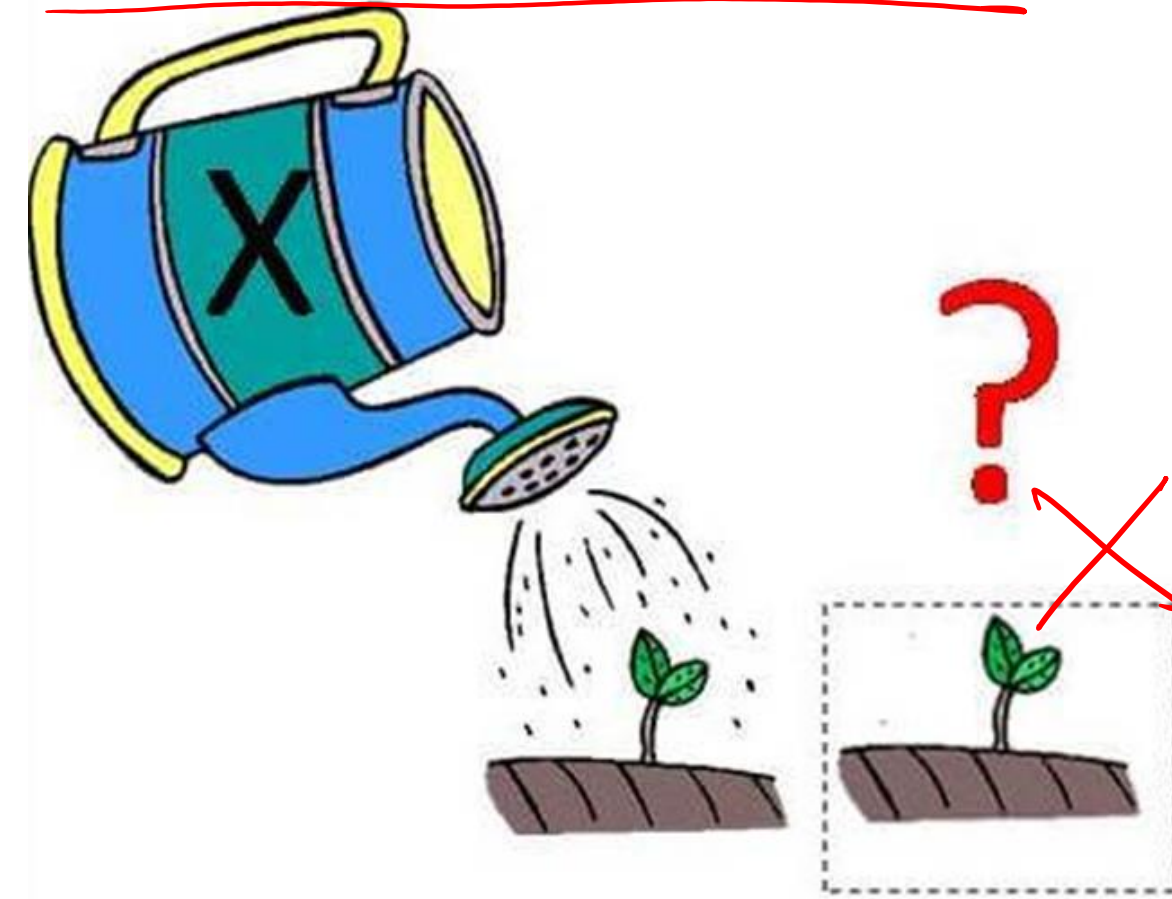
Alternative Hypothesis

H_1 : Application of bio-fertilizer 'x' increase plant growth



Null Hypothesis

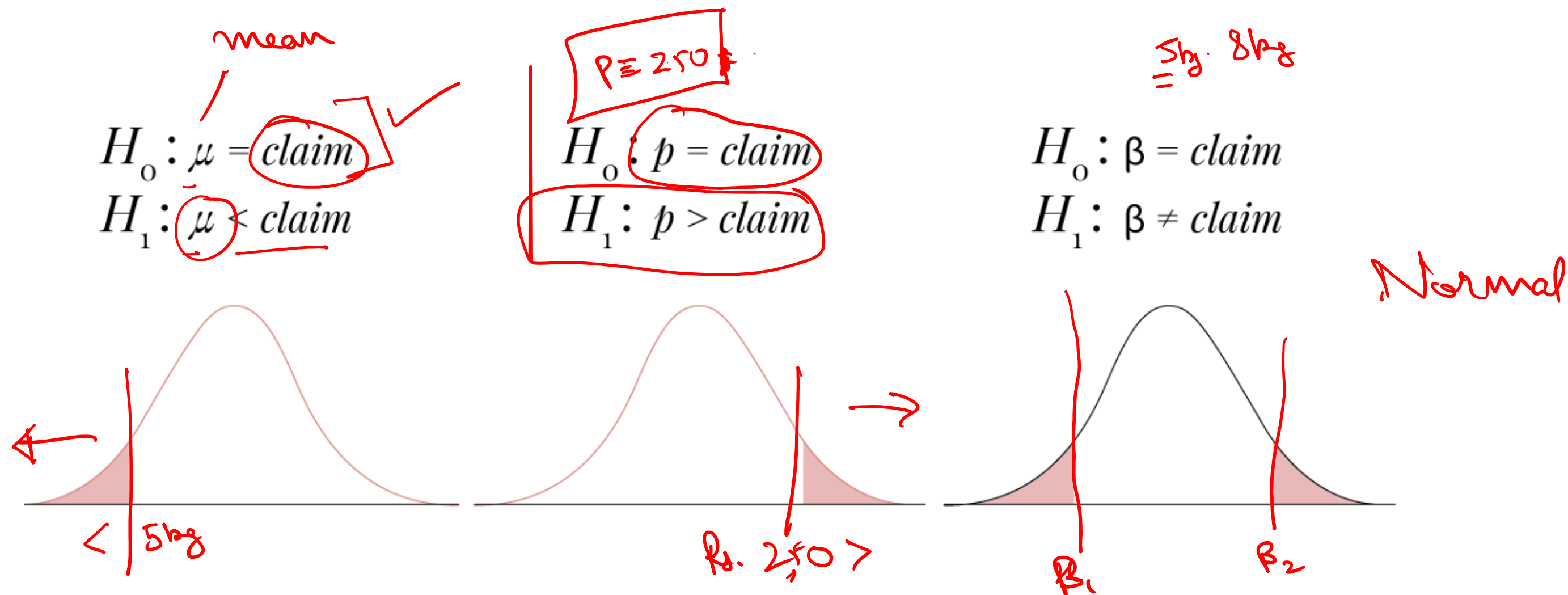
H_0 : Application of bio-fertilizer 'x' does not increase plant growth



Hypothesis Testing



- A statistical hypothesis test is a method of statistical inference used to decide whether the data at hand sufficiently support a particular hypothesis.



Thank you

