

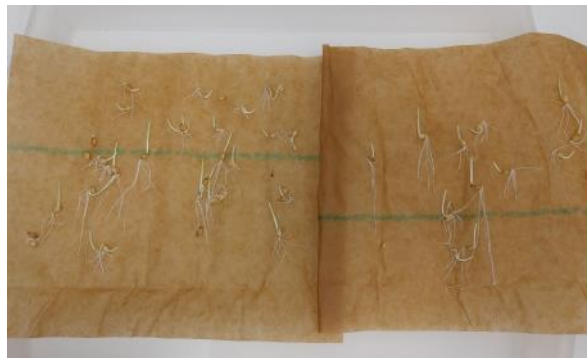


**Experiment:**  
**Seed Germination**  
**Analysis of Germination**



**Germination Analysis:**

After 5 days, remove the rolled paper from the bag. Gently un-roll the paper and open on a flat surface.



Seedlings are now to be categorized into 3 types: Normal, Abnormal & Dead.

Normal: Seedlings that have all their essential structures with no critical defects - shoot (with leaf inside) and normal roots.

Abnormal: Seedling with 1 or more critical defect.

Dead: Seed with no growth

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This sample has a critical defect that effects the roots. This type of damage is most commonly caused by chemicals applied to the plants at the wrong time before they are harvested.

This will cause the roots to be short and have a wire like texture.

They will also be short and spread out like little spider legs.

When touching the roots they will spring back into the spider form.

Normal seedlings will have longer roots that feel soft and will stay down when touching them.

Abnormal (chemically damaged) – left, Normal – right





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Separate the normal from the abnormal and count each category.

Divide your number of seedlings in each category by the total amount of seeds tested

Ex)  $15 \text{ normal} / 50 \text{ seeds} = 0.3$

$0.3 \times 100 = 30\% \text{ normal}$

This will give you the final results for your germination test.

Here are some additional photos:

Normal:



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Abnormal – chemically damaged seedlings:



Abnormal – Critical defects (Missing shoot, missing root):





***This experiment pack was generously provided by***



*If you experience any challenges with your experiments please reach out to their team, or us at Ag Tech Steam and we'll do our best to help you!*



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