



Repeating Crumley: Day 3

ANTHONY SALVAGNO

 [READ REVIEWS](#)

 [WRITE A REVIEW](#)

CORRESPONDENCE:

DATE RECEIVED:

June 10, 2015

DOI:

10.15200/winn.142722.25456

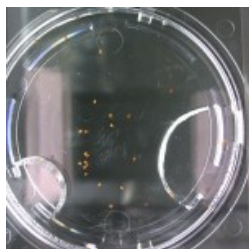
ARCHIVED:

March 24, 2015

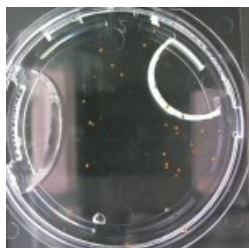
CITATION:

Anthony Salvagno, Repeating Crumley: Day 3, *The Winnower* 2:e142722.25456, 2015, DOI: [10.15200/winn.142722.25456](https://doi.org/10.15200/winn.142722.25456)

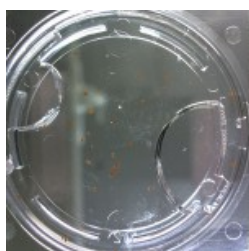
© Salvagno This article is distributed under the terms of the [Creative Commons Attribution 4.0 International License](#), which permits unrestricted use, distribution, and redistribution in any medium, provided that the original author and source are credited.



99.9% D₂O



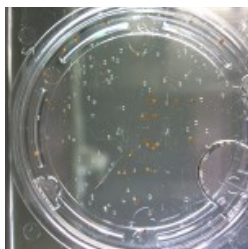
66% D₂O



33% D₂O



DI WATER



DDW



NO SEEDS, DI WATER

Here is day 3 and there are already some visible sprouting. Once again I'm not sure from what point Crumley considered a seed to be germinating but I definitely see radicle growth in many of the seeds in the ddw, and di water samples, and some sprouting in the 33% d2o sample. As expected, the sample with no seeds shows no sprouting (or abnormal growth of any sort).

I counted anything that had a white tip as the beginning of germination and here are my results (feel free to double check my numbers):

1. No seeds – 0/0
2. DDW – 19/30
3. DI water – 20/30
4. 33% D2O – 3/30
5. 66% D2O – 0/30
6. 99.9% D2O – 0/30

Before counting for germination, I counted to ensure there were 30 seeds in each sample, then I counted the white tips. It should be noted that after I took the picture for the 33% D2O I dropped the sample, a drop of water was lost, but more importantly the bubble moved all the seeds around.

Also to be noted, in the 33% D2O sample there is a white floating thing. I'm not sure what it is, but it could be a premature seedling that shed it's seed coat. I still counted 30 seeds without the white thing, so we'll see what happens. This is visible in the picture before I dropped it, so the trauma from dropping isn't what caused the premie.

Update to Data: I added the original Crumley data to [the spreadsheet](#) on it's own sheet and I made a graph of the current data. So far it matches up pretty well, but it is only day 3. Crumley reported a lot of growth in 33% D2O by day 5 and a lot of growth in 66% D2O by day 8. Around that time is when the first seeds started to sprout in 99.9% D2O.