

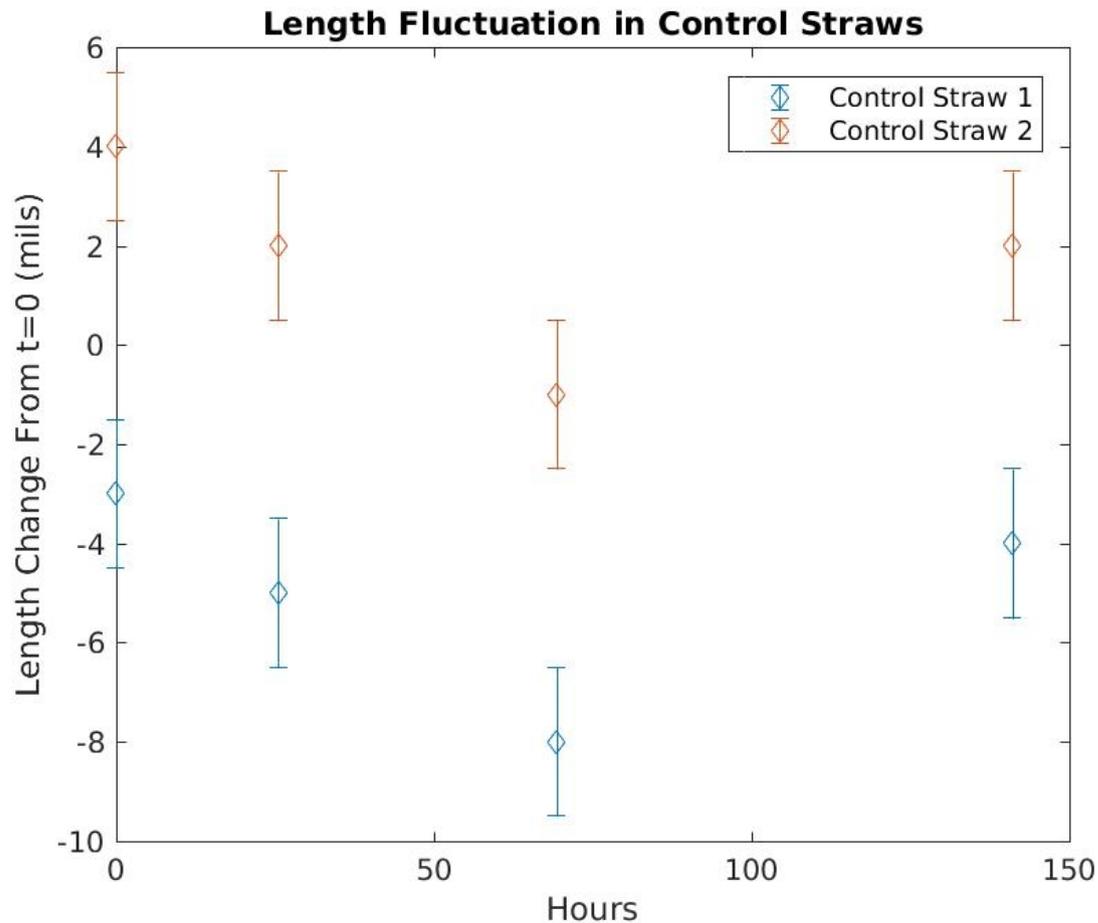
# Straw Length Change From Tensioning

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August 16<sup>th</sup>, 2017

# Procedure

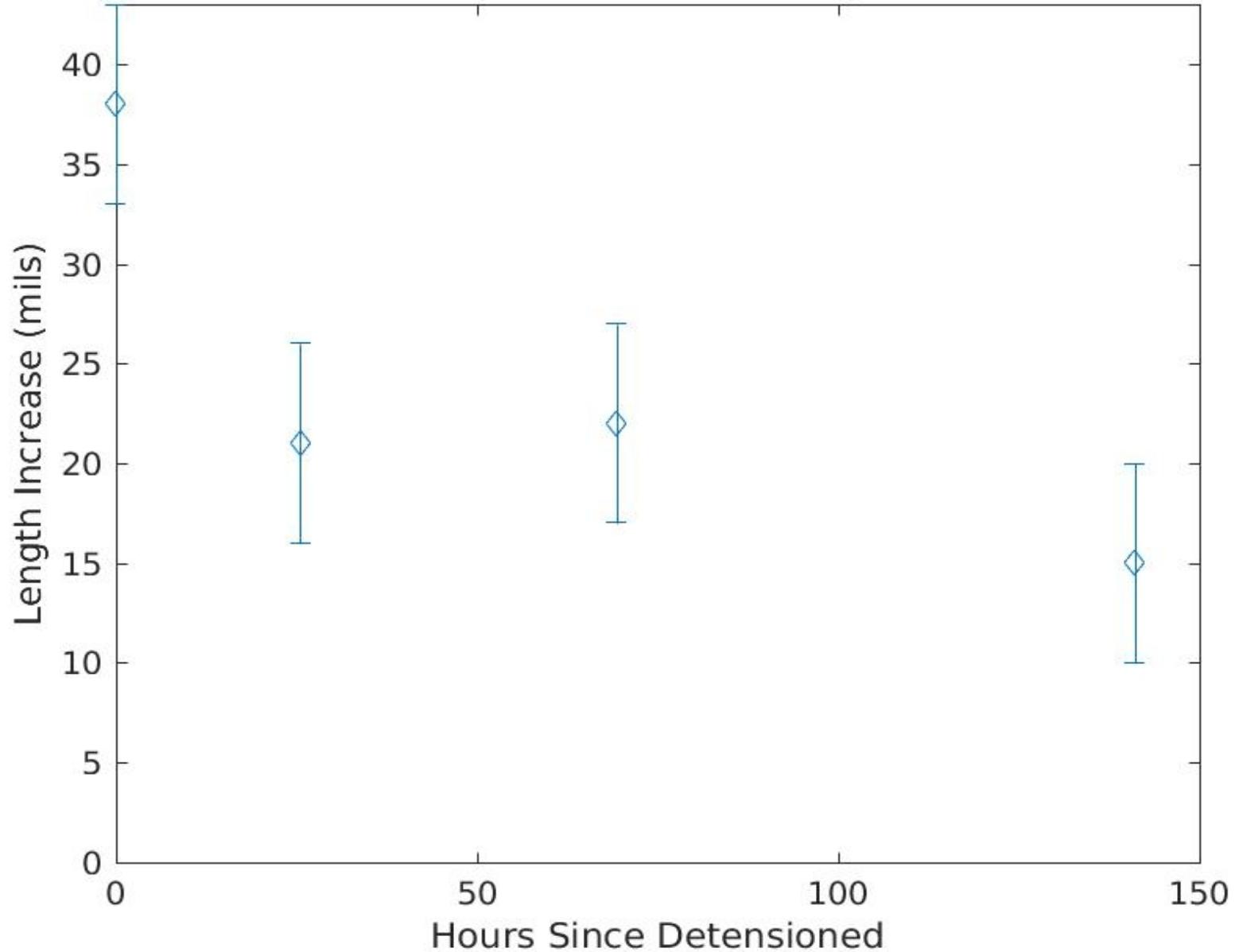
- Epoxied brass sleeves from termination endpieces into full length straws
- Clamped straws over brass sleeve to tension at 800gf for 24hrs
  - Did not cut straws after tension
- Measured straws before and after tension, along with control straws

# Issues

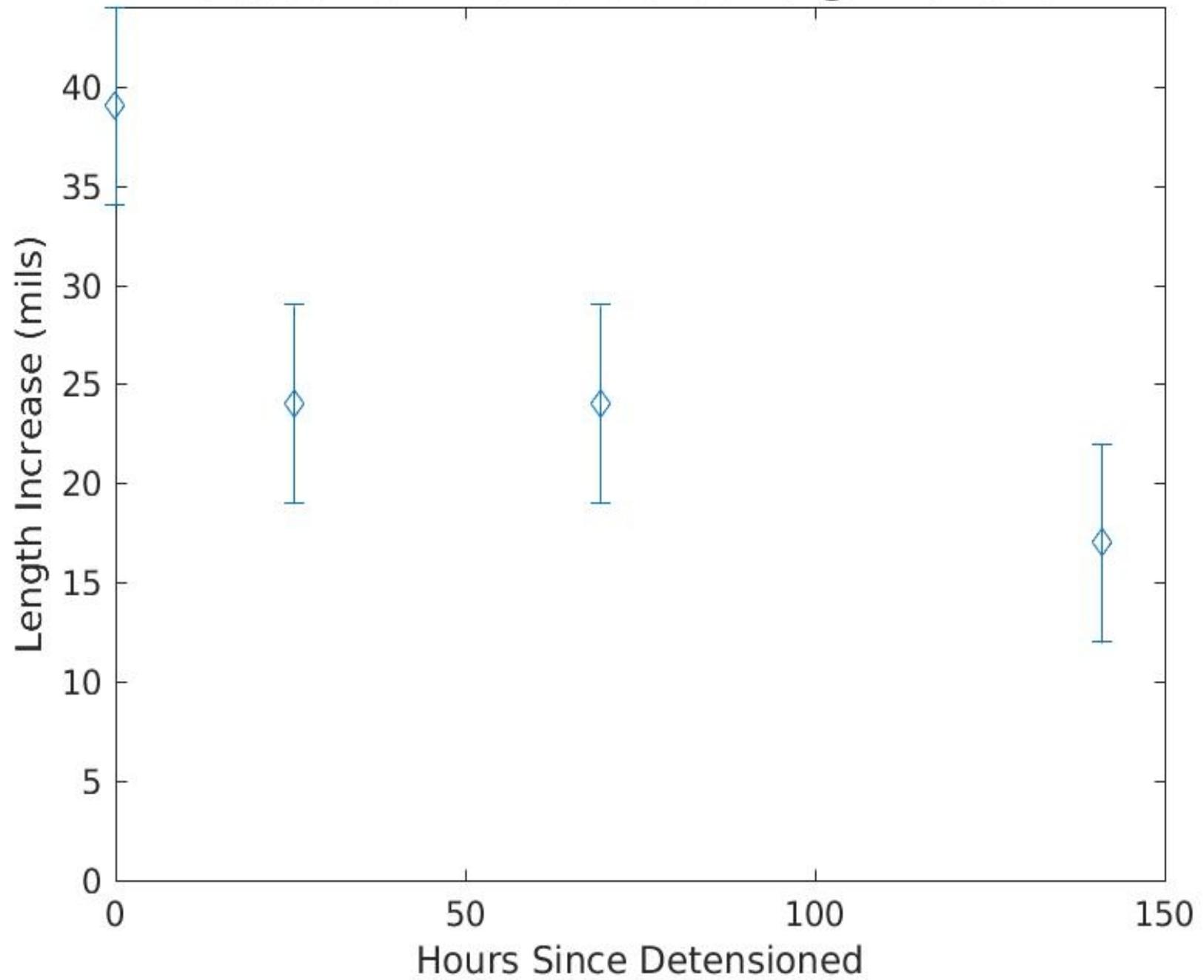


- Control Straws follow similar trend, but offset should be same
- Can correct change in tensioned straw lengths relative to previous measurement, but not offset from zero
- Tensioning kinked the straws; hard to measure

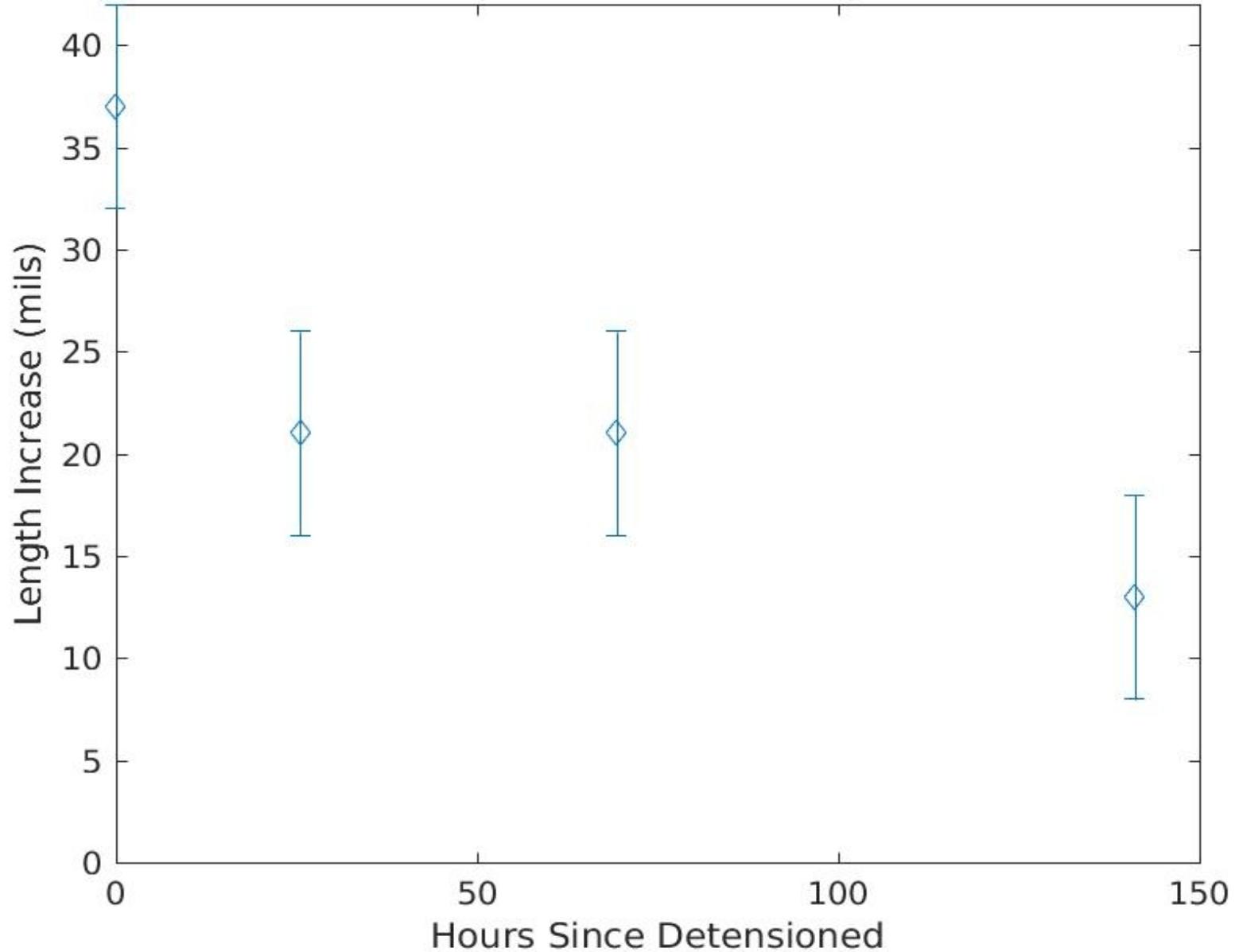
**Increase from Pre-Tensioned Length For Straw0**



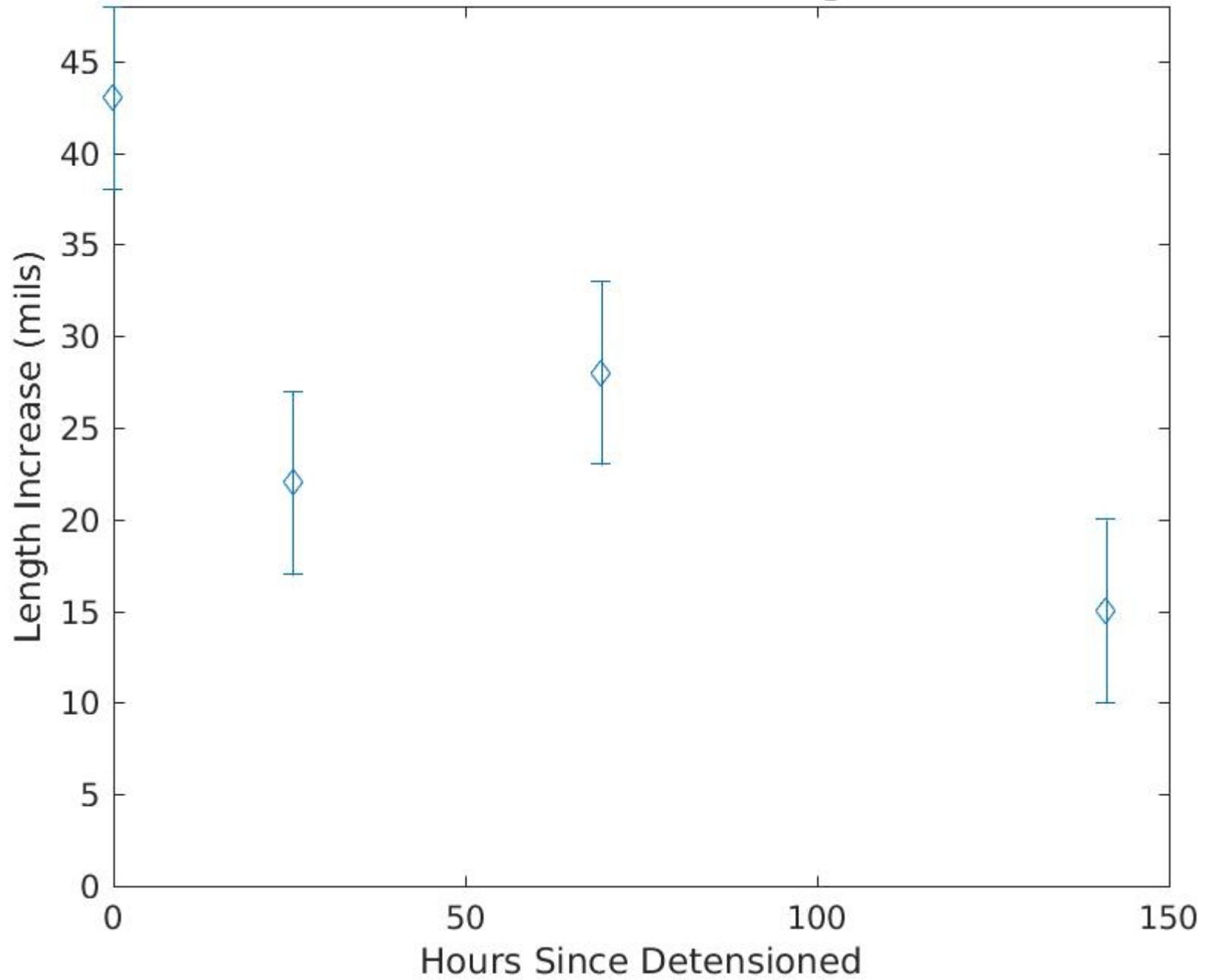
### Increase from Pre-Tensioned Length For Straw1



**Increase from Pre-Tensioned Length For Straw2**



### Increase from Pre-Tensioned Length For Straw3



# Conclusion

- Straws do not relax to untensioned length – full-length straws are ~15 mils longer
- This is another confirmation that pre-tensioning changes straw properties
- In process of measuring more straws, with improved procedure
  - So far, consistent with previous findings