OLDS COLLEGE LILY RESEARCH PLOTS

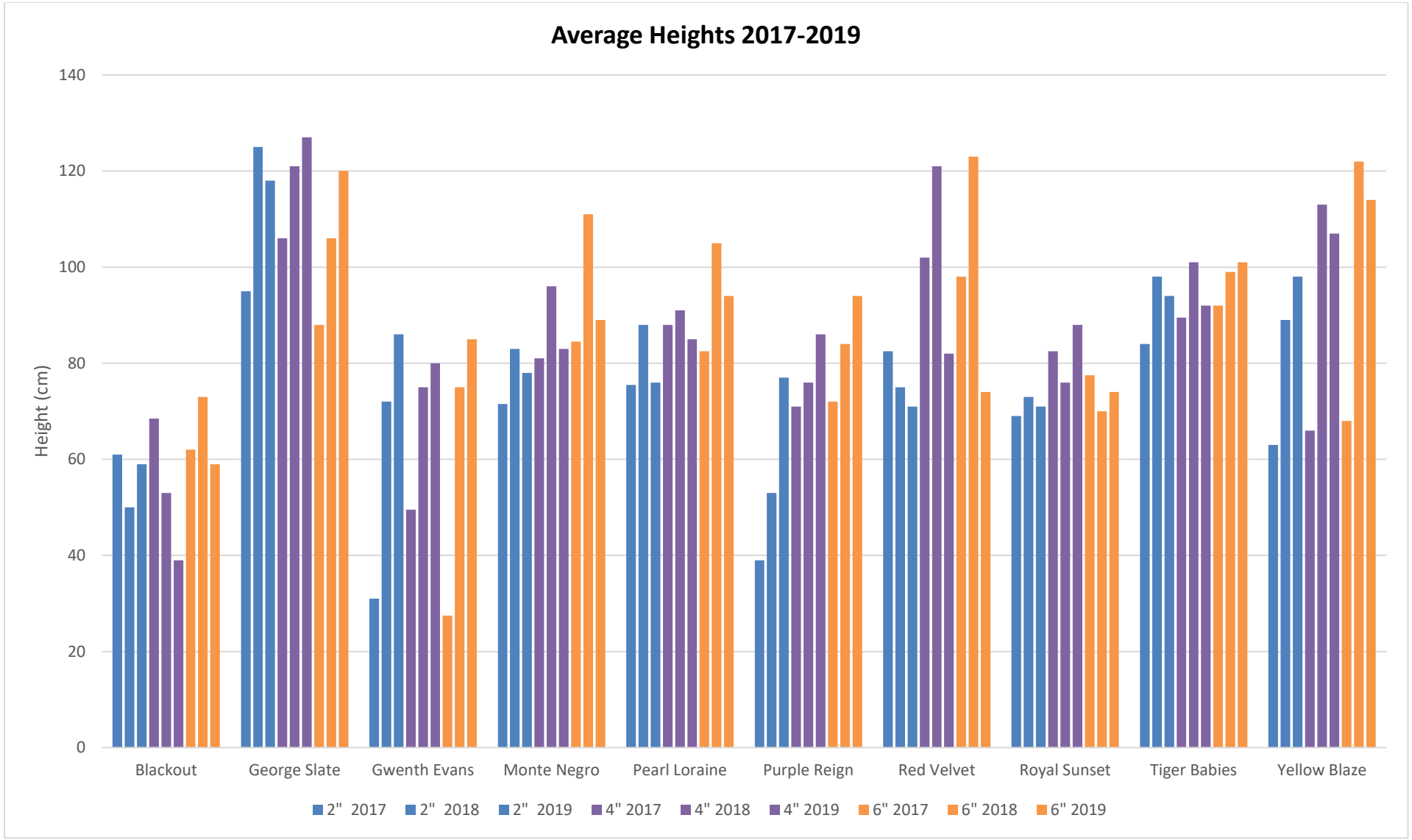
DEPTH TRIAL RESULTS

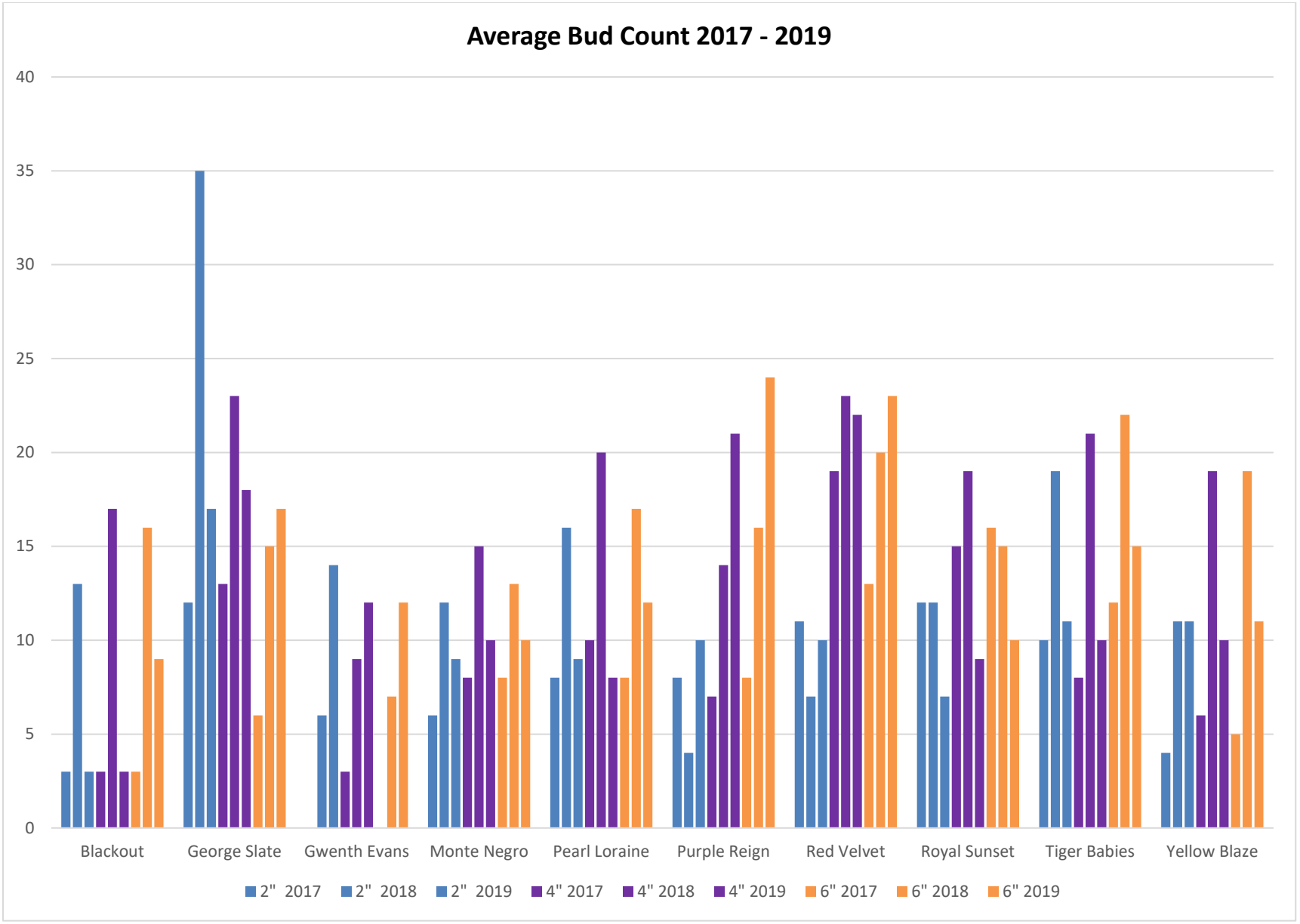
Depth Trial Experiment

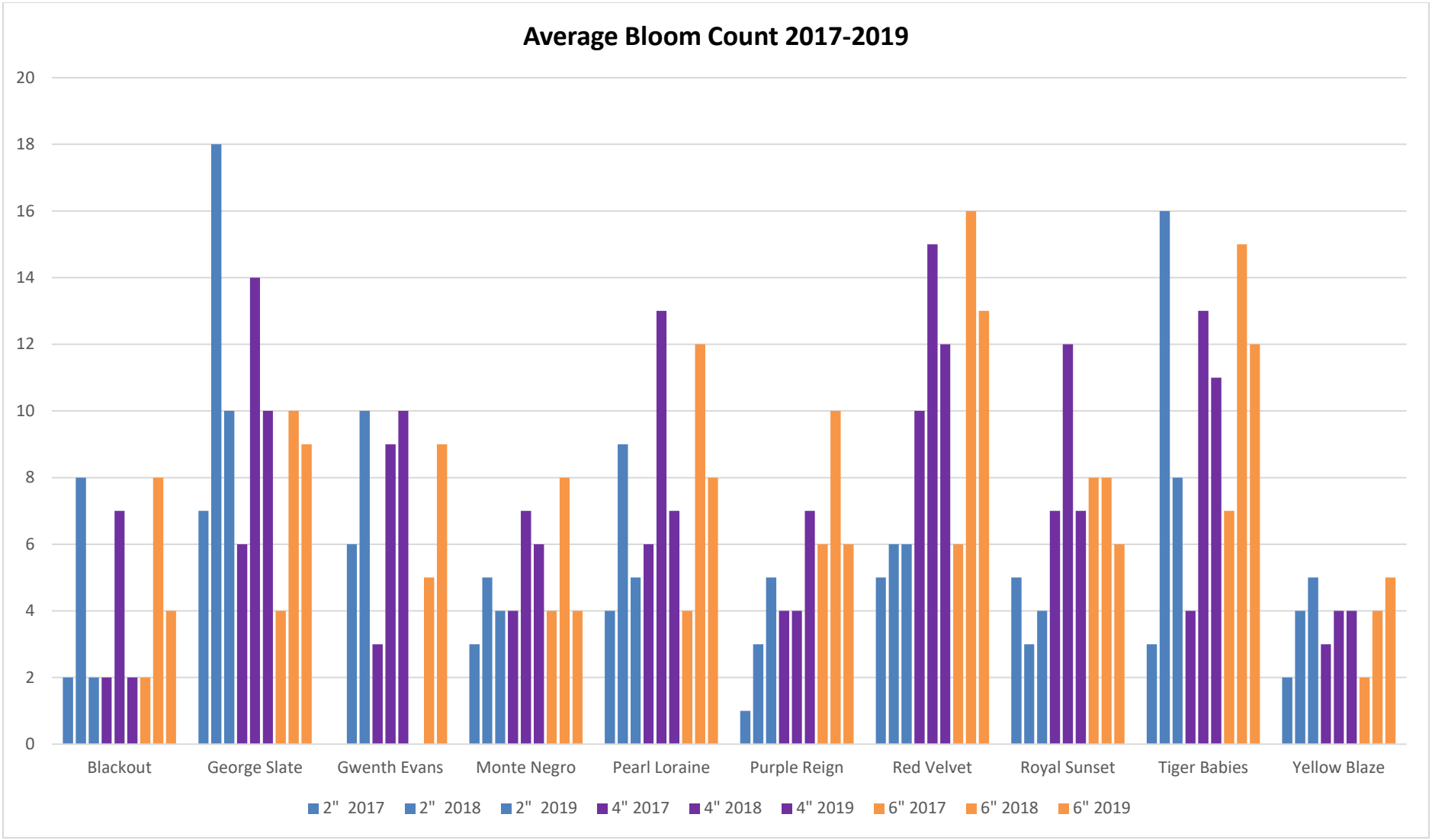
- 10 different Asiatic lily cultivars were chosen
- 9 bulbs of each were purchased
- 3 bulbs of each were planted at 2”, 4” and 6” depths
- Planted in 2016, data was collected for 3 growing seasons
- All bulbs were dug from the field in October of 2019
- Final bulb depth at removal was measured and compared against planting depth
    - Variables – erosion, maintenance work (ie. weeding), gophers
- Some bulbs were not present at removal, resulting in average/mean values that were based on a single specimen
    - At 2” planting depth 8 bulbs were missing
    - At 4” planting depth 4 bulbs were missing
    - At 6” planting depth 6 bulbs were missing
    - Gwyneth Evans – 5 bulbs were missing, leading to questions of hardiness
- All measurements and counts are made on the tallest single stem of each plant.

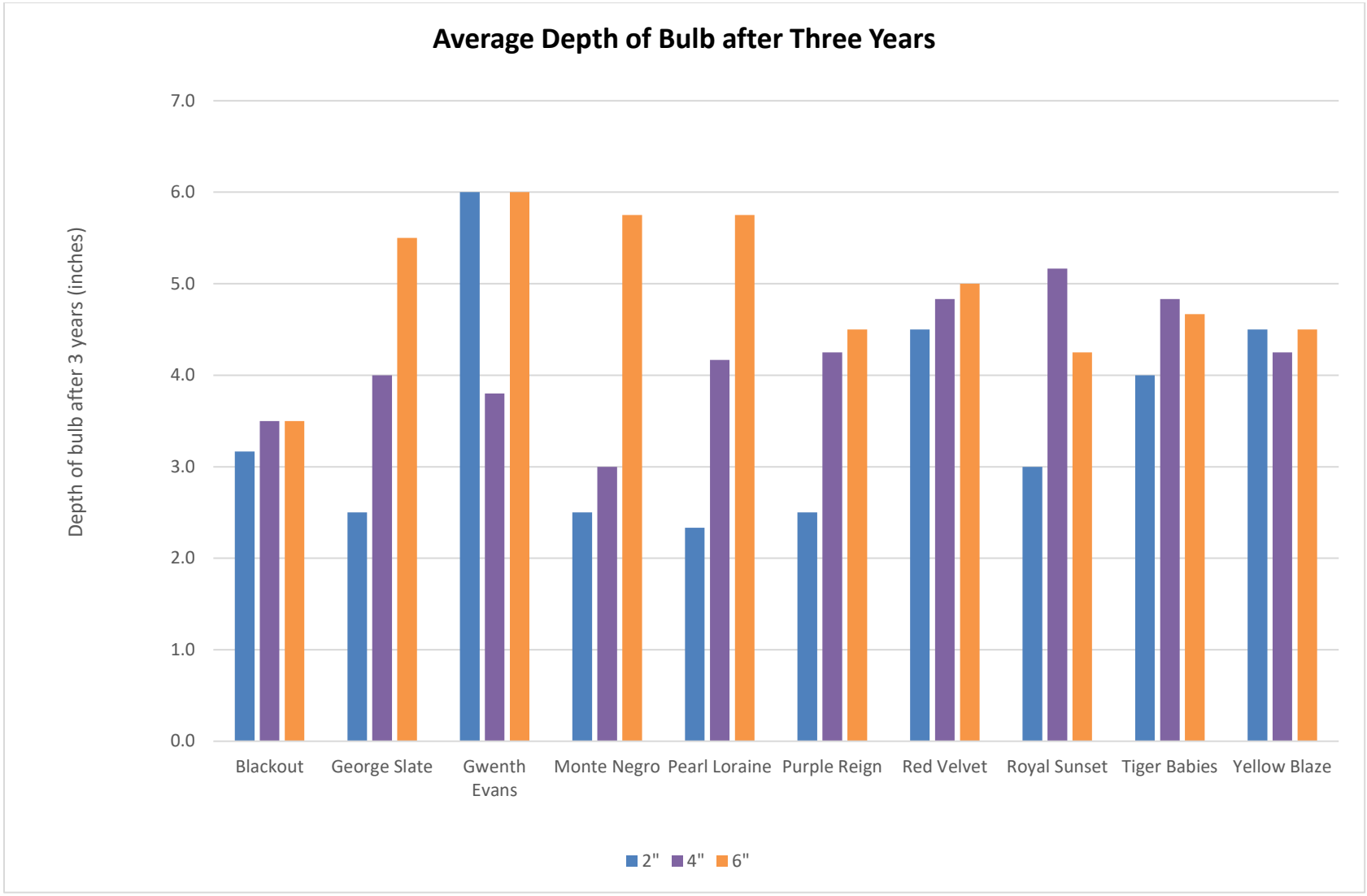
Graphs

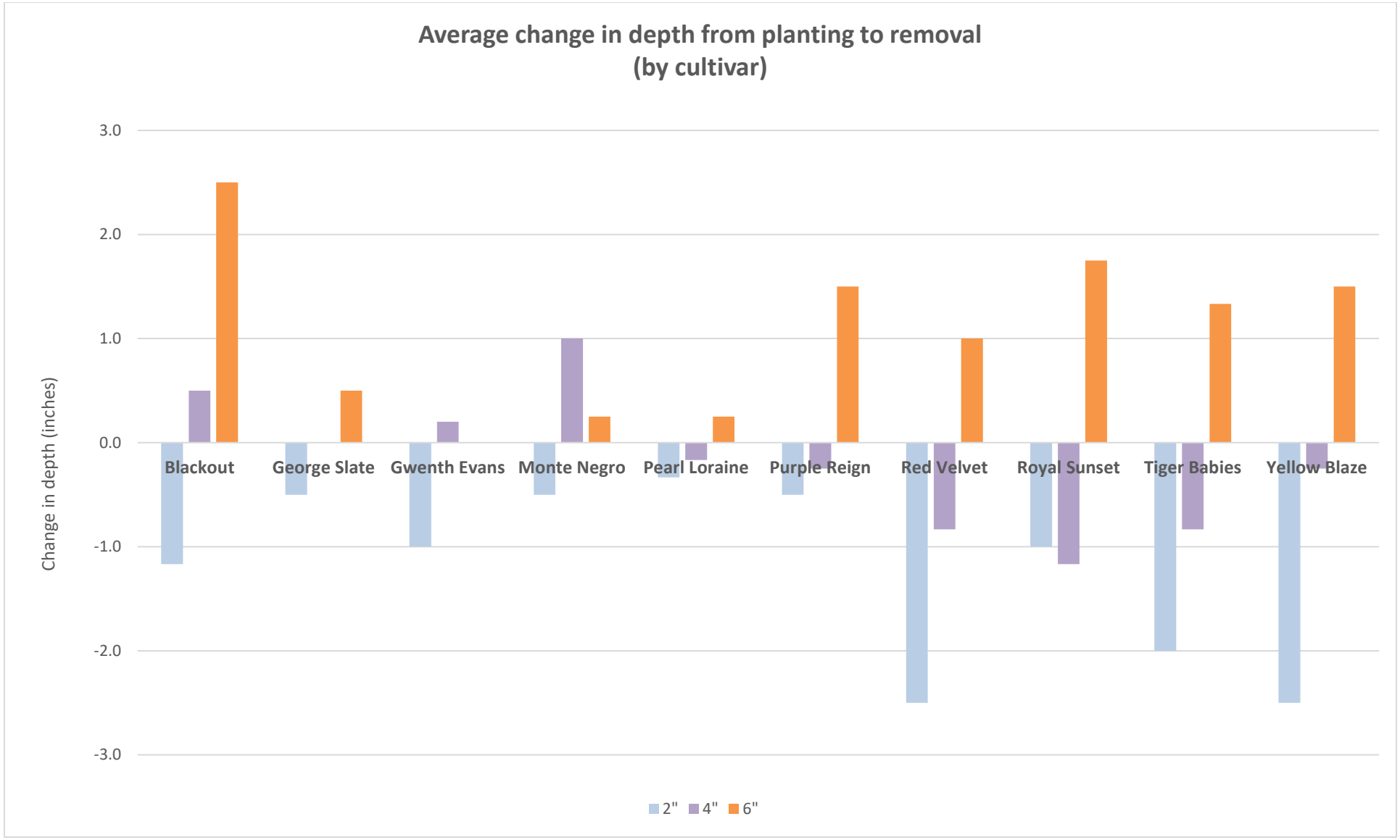
2017-2019 Average maximum heights year over year for each lily
2017-2019 Average bud count year over year for each lily
2017-2019 Average bloom count year over year for each lily

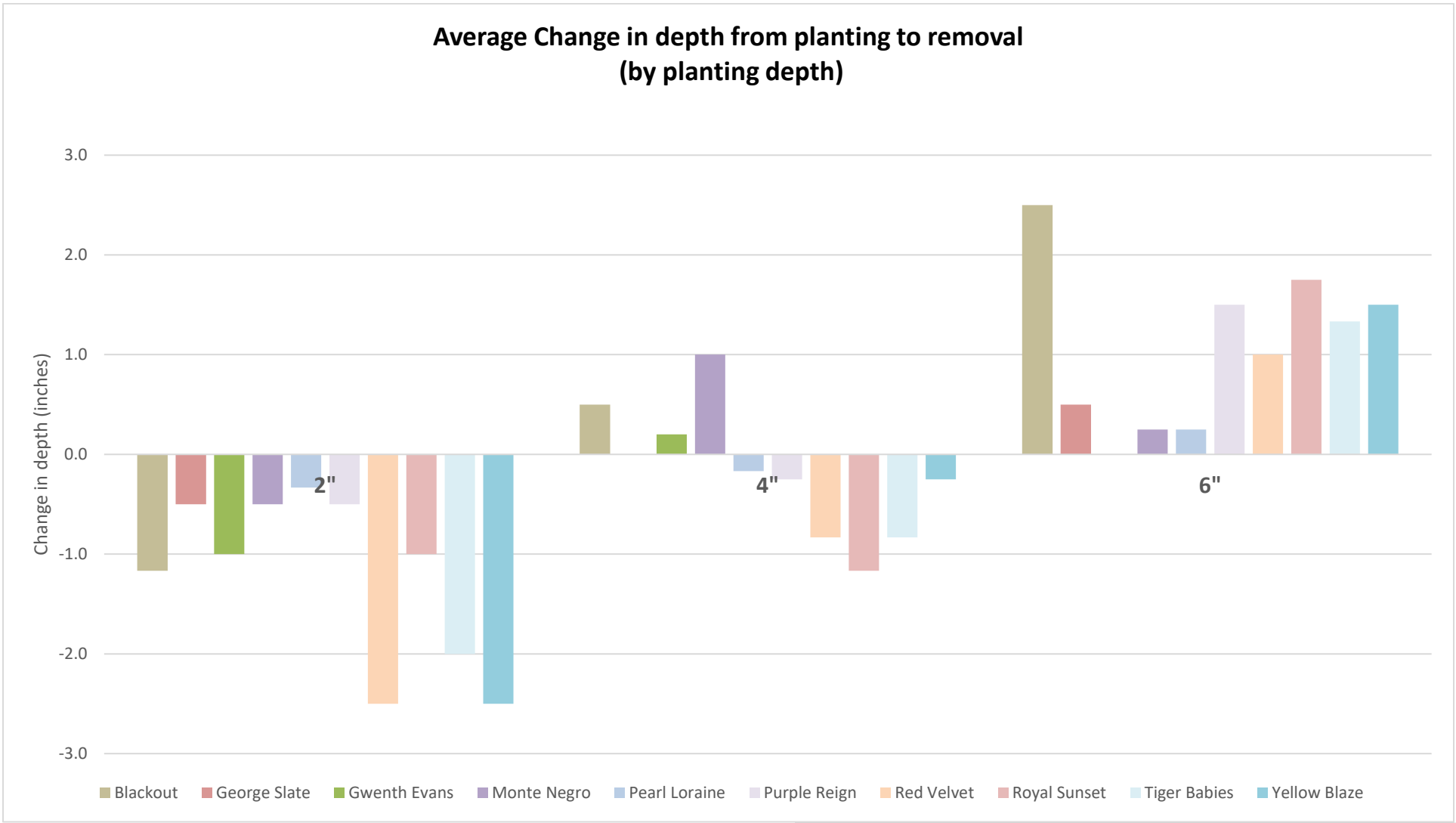

Average Heights 2017-2019
Height (cm)
140
120
100
80
60
40
20
0
Blackout
George Slate
Gwenth Evans
Monte Negro
Pearl Loraine
Purple Reign
Red Velvet
Royal Sunset
Tiger Babies
Yellow Blaze
2" 2017
2" 2018
2" 2019
4" 2017
4" 2018
4" 2019
6" 2017
6" 2018
6" 2019


Average Bud Count 2017 - 2019
40
35
30
25
20
15
10
5
0
Blackout
George Slate
Gwenth Evans
Monte Negro
Pearl Loraine
Purple Reign
Red Velvet
Royal Sunset
Tiger Babies
Yellow Blaze
2" 2017
2" 2018
2" 2019
4" 2017
4" 2018
4" 2019
6" 2017
6" 2018
6" 2019


Average Bloom Count 2017-2019
20
18
16
14
12
10
8
6
4
2
0
Blackout
George Slate
Gwenth Evans
Monte Negro
Pearl Loraine
Purple Reign
Red Velvet
Royal Sunset
Tiger Babies
Yellow Blaze
2" 2017
2" 2018
2" 2019
4" 2017
4" 2018
4" 2019
6" 2017
6" 2018
6" 2019


Average Depth of Bulb after Three Years
Depth of bulb after 3 years (inches)
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Blackout
George Slate
Gwenth Evans
Monte Negro
Pearl Loraine
Purple Reign
Red Velvet
Royal Sunset
Tiger Babies
Yellow Blaze
2"
4"
6"


Average change in depth from planting to removal
(by cultivar)
Change in depth (inches)
3.0
2.0
1.0
0.0
-1.0
-2.0
-3.0
Blackout
George Slate
Gwenth Evans
Monte Negro
Pearl Loraine
Purple Reign
Red Velvet
Royal Sunset
Tiger Babies
Yellow Blaze
2"
4"
6"



Bulbs planted at 2”- all moved deeper by between 0.5” to 2.5 “

Bulbs planted at 4” – 6 moved deeper by between 0.2” to 1.2”; 1 stayed at the same depth, and 3 moved shallower (0.2” to 1.0”)

Bulbs planted at 6” – all moved shallower from between 0.3” to 2.5”; 1 bulb stayed at the same depth

Results and Conclusions

- Planting depth of 2”
  - All cultivars – bulbs were found deeper than planting depth
- Planting depth of 4”
  - 3 cultivars – bulbs were found shallower
  - 1 cultivar – bulbs were found a the same depth
  - 6 cultivars – bulbs were found deeper
- Planting depth of 6”
  - 1 cultivar – bulbs found at the same depth
  - 9 cultivars – bulbs found deeper

Notes

- Experimental design
  - Needed more than 3 replicants to allow for bulb loss
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