

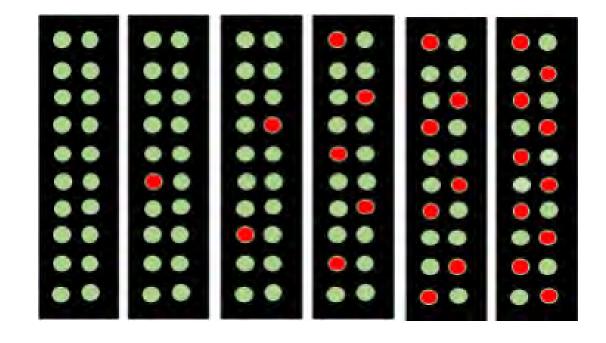


Experiment 1

 The objective of this research was to determine the effect of season-long competition of Carolina geranium at varying densities on strawberry growth and yield.

Material and methods

- One field trial in 2020 and 2021 at GCREC
- Carolina geranium transplanted after two weeks of strawberry transplant
- The density used was 0, 0.2, 0.4, 1.0, 1.4, and 2.0 Carolina geranium plants m⁻².









No CG One CG Two CG







Five CG Seven CG Ten CG









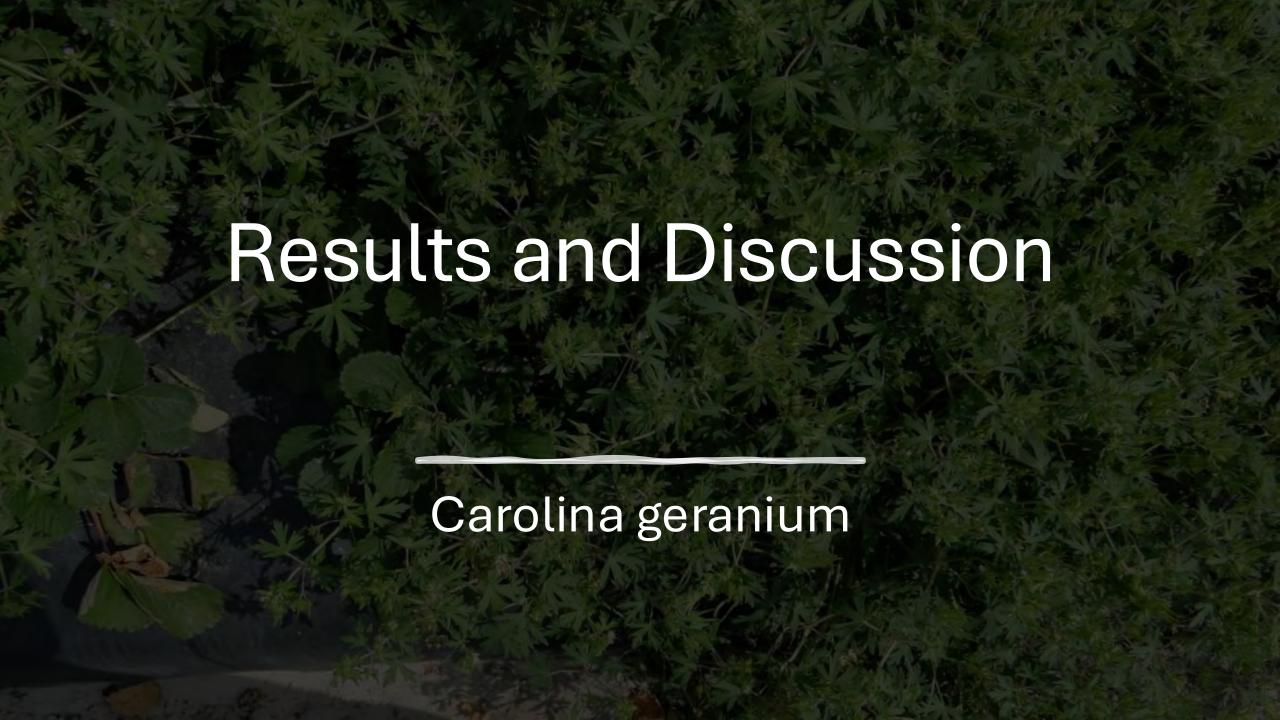


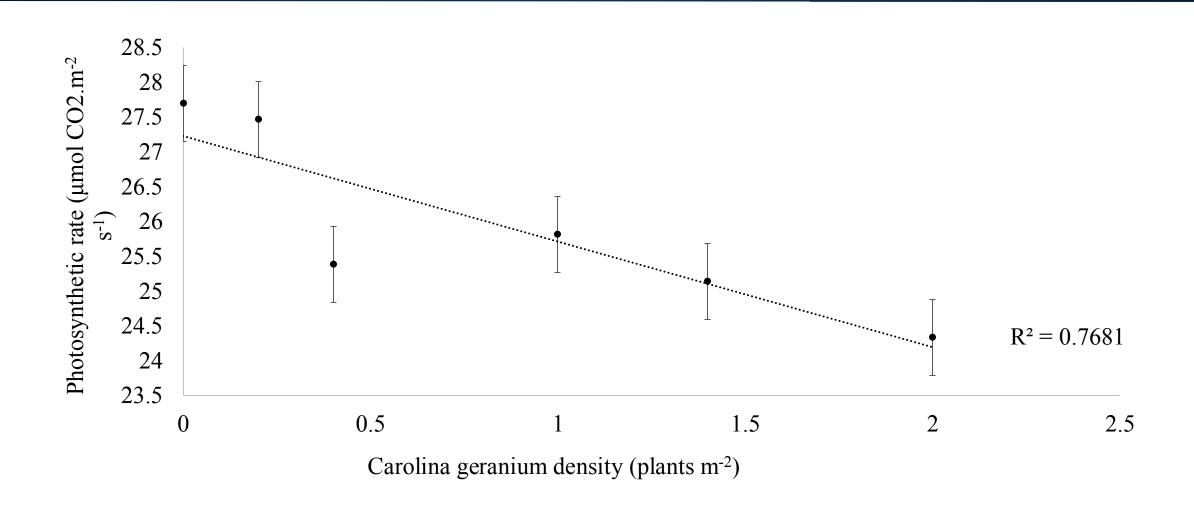
Table 1. Carolina geranium height by month at the Gulf Coast Research and Education Center in Wimauma, FL, in 2020-2021 (Season I) and 2021-2022 (Season II).

Month	Carolina Geranium Height				
	Season I		Season II		
	cm plant ⁻¹				
December	10	a^b	13	a	
January	14	Ъ	21	b	
February	52	c	49	c	
P- value ^a	<.00	<.0001		<.0001	

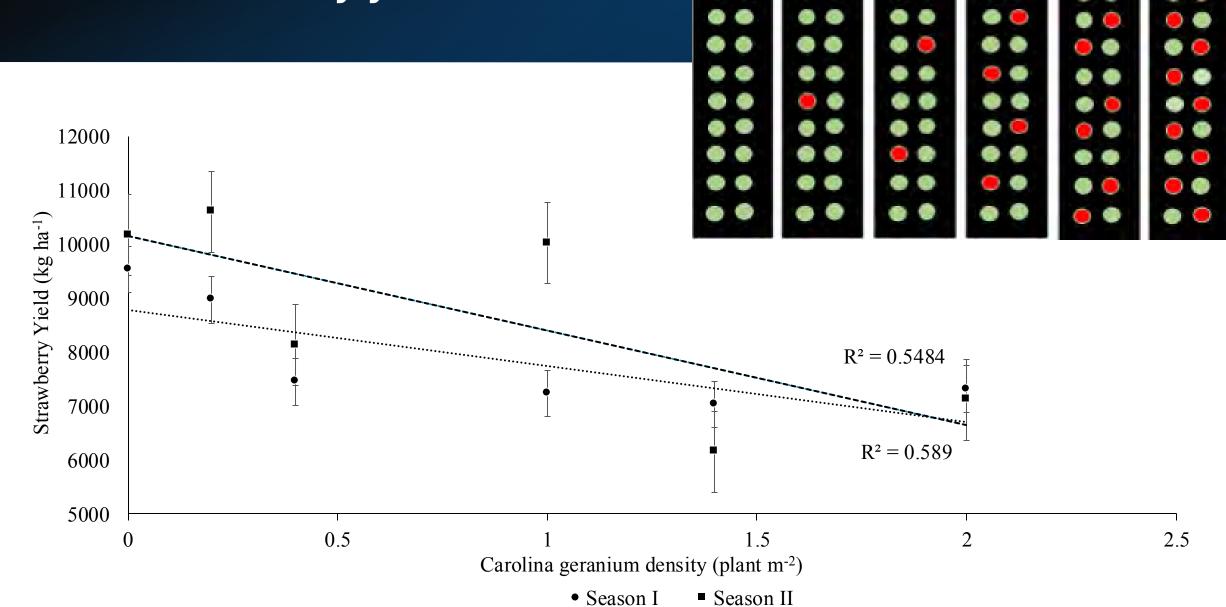
^aThe value refers to the factor time, from the repeated measures analyses.

^bMeans within a column followed by the same letter are not significantly different according to Tukey test ($P \le 0.05$)

Strawberry Photosynthetic rate- Season II







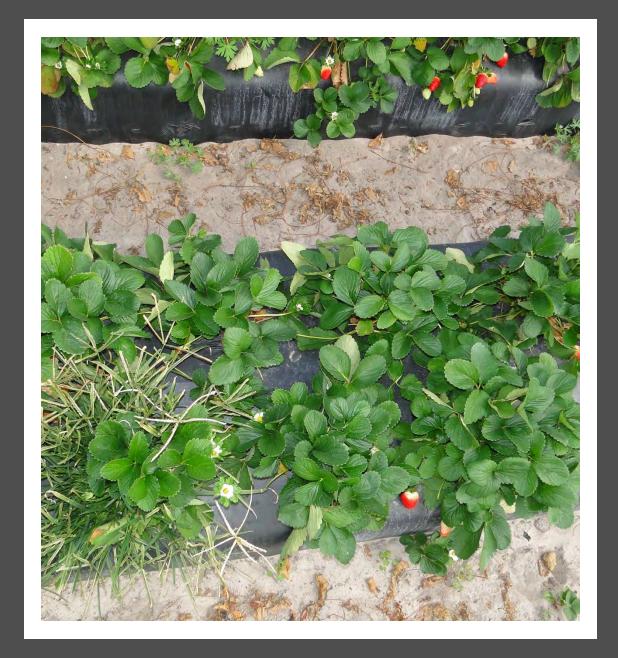
Conclusions

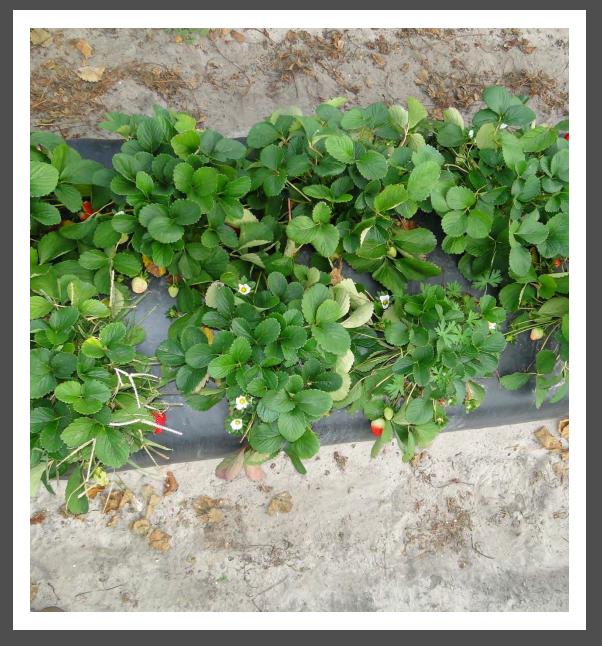
- Carolina geranium negatively affects strawberry yield.
- For example, from 0 to 1 Carolina geranium per 4 ft of row your expected seasonal yield loss would be 187 – 313 lbs/acre of berries.
- Additional Considerations:
 - Increased difficulty removing plastic
 - Berry quality
 - Missed berries by harvest crews
 - Increased pest pressure
 - Weed population increases over time due to seed production



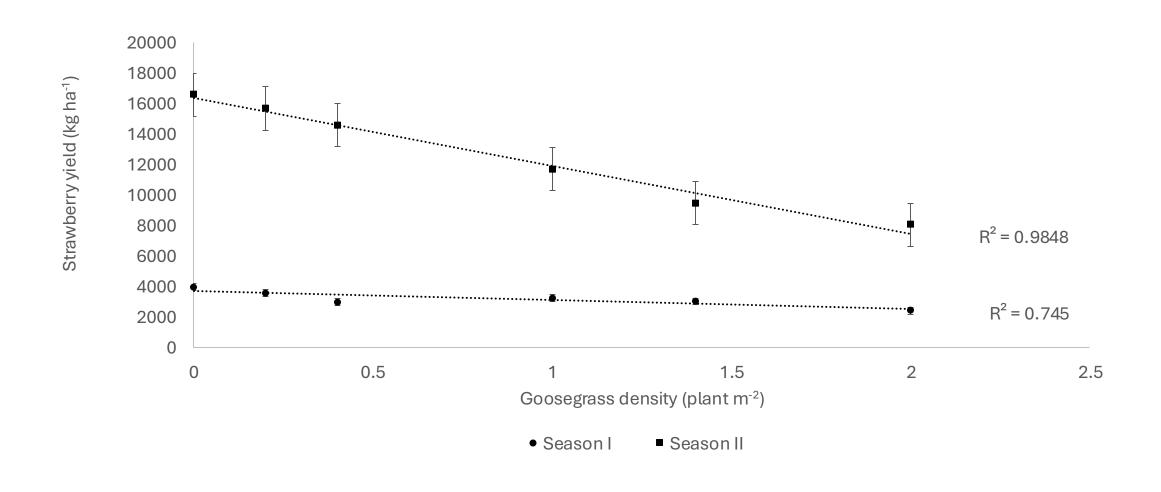
Goosegrass in Strawberry



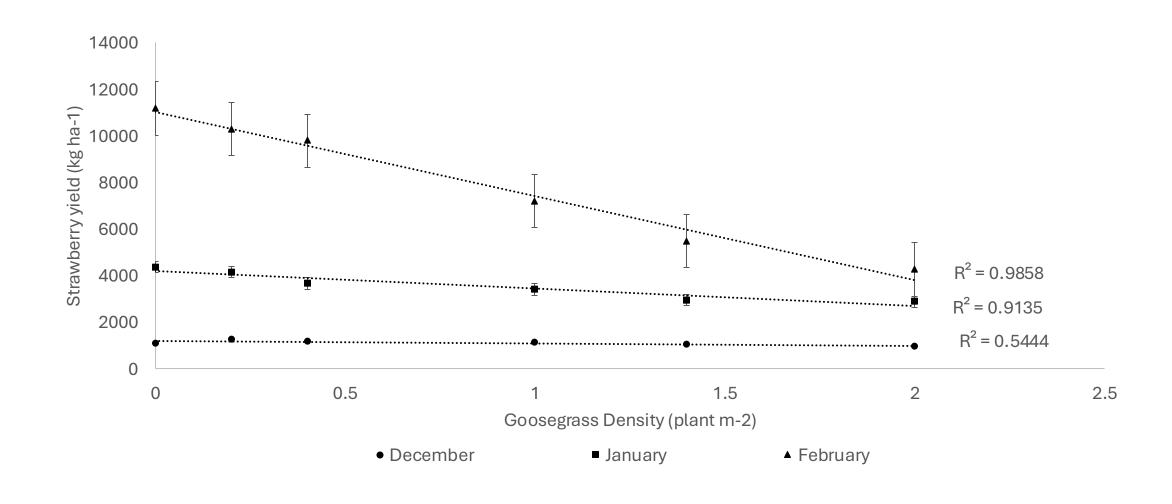




Strawberry yield



Strawberry Yield-Season II





Conclusions

- Goosegrass negatively affects strawberry yield.
- Goosegrass reduced yield by 29% (moderate density) to 47% (severe infestation).







Row Middle Weeds

- Host nematodes, insects, and diseases
- Complicate plastic removal
- Reduce crop yields



Acknowledgments









