

Cover crops: Controlling pests at multiple trophic levels

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Clover-Rye

Clover

Fallow

Fallow

Clover-Rye

Clover

Clover

Clover-Rye

Fallow

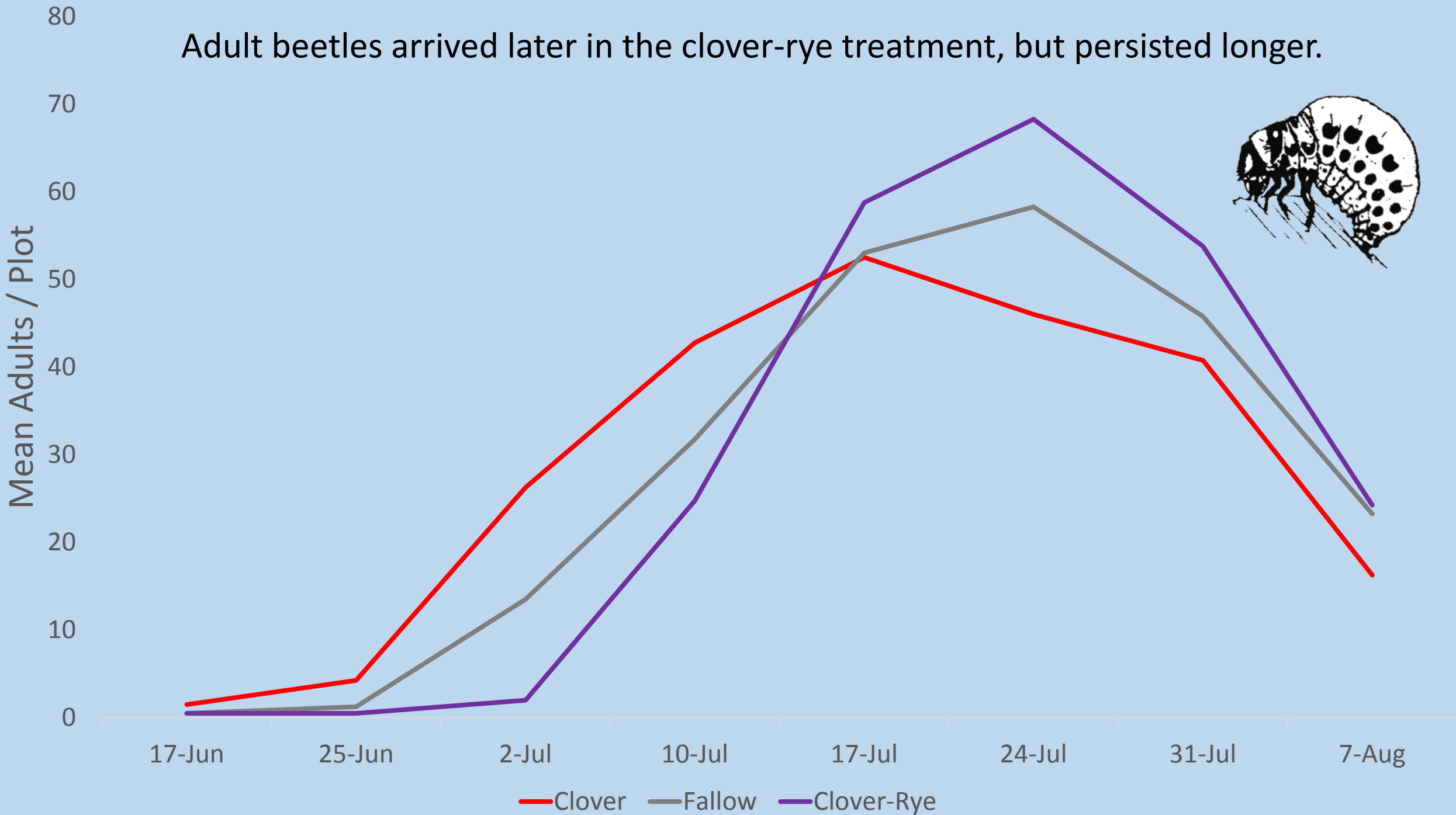
Clover

Fallow

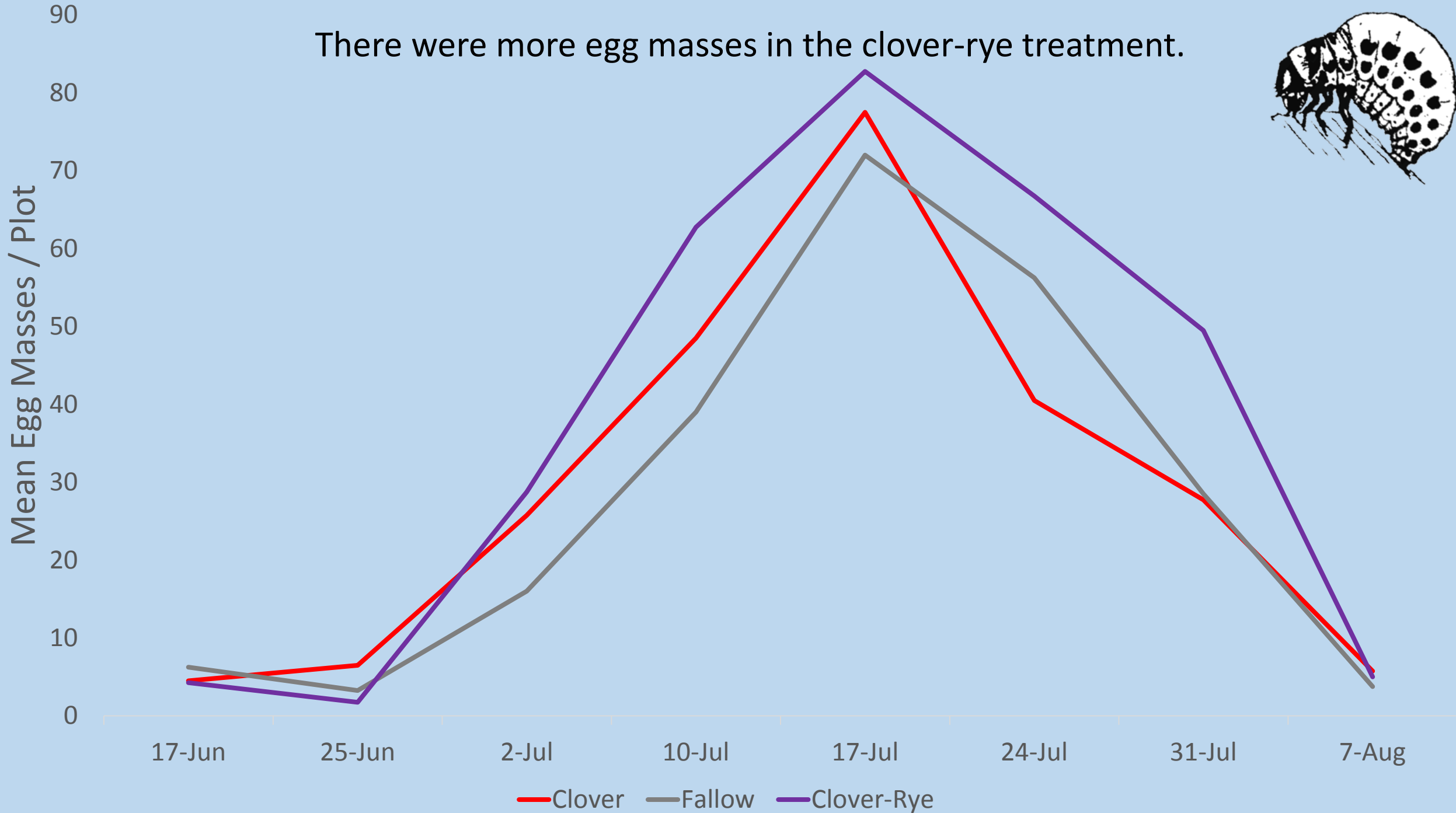
Clover-Rye



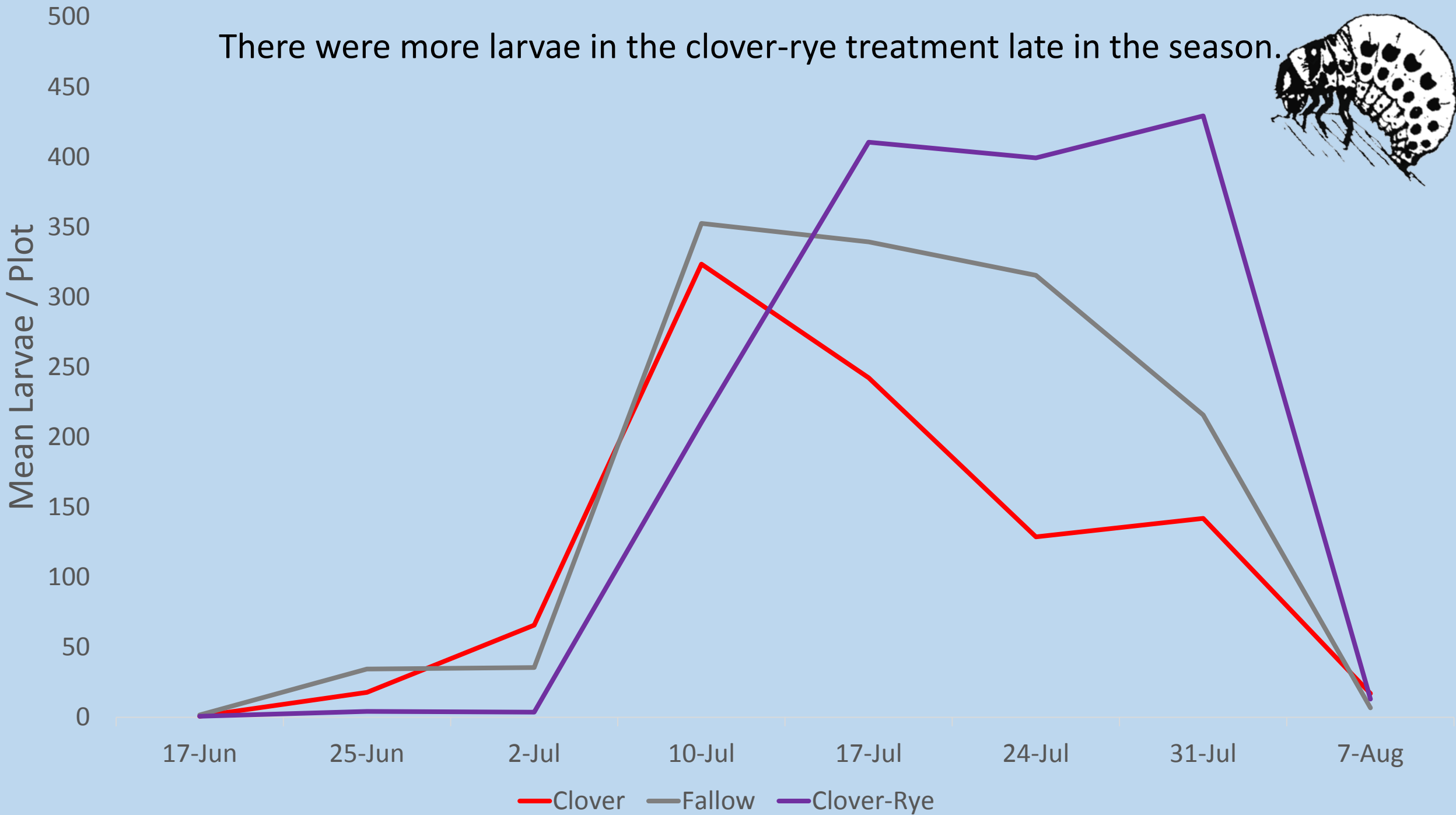
Adult beetles arrived later in the clover-rye treatment, but persisted longer.



There were more egg masses in the clover-rye treatment.

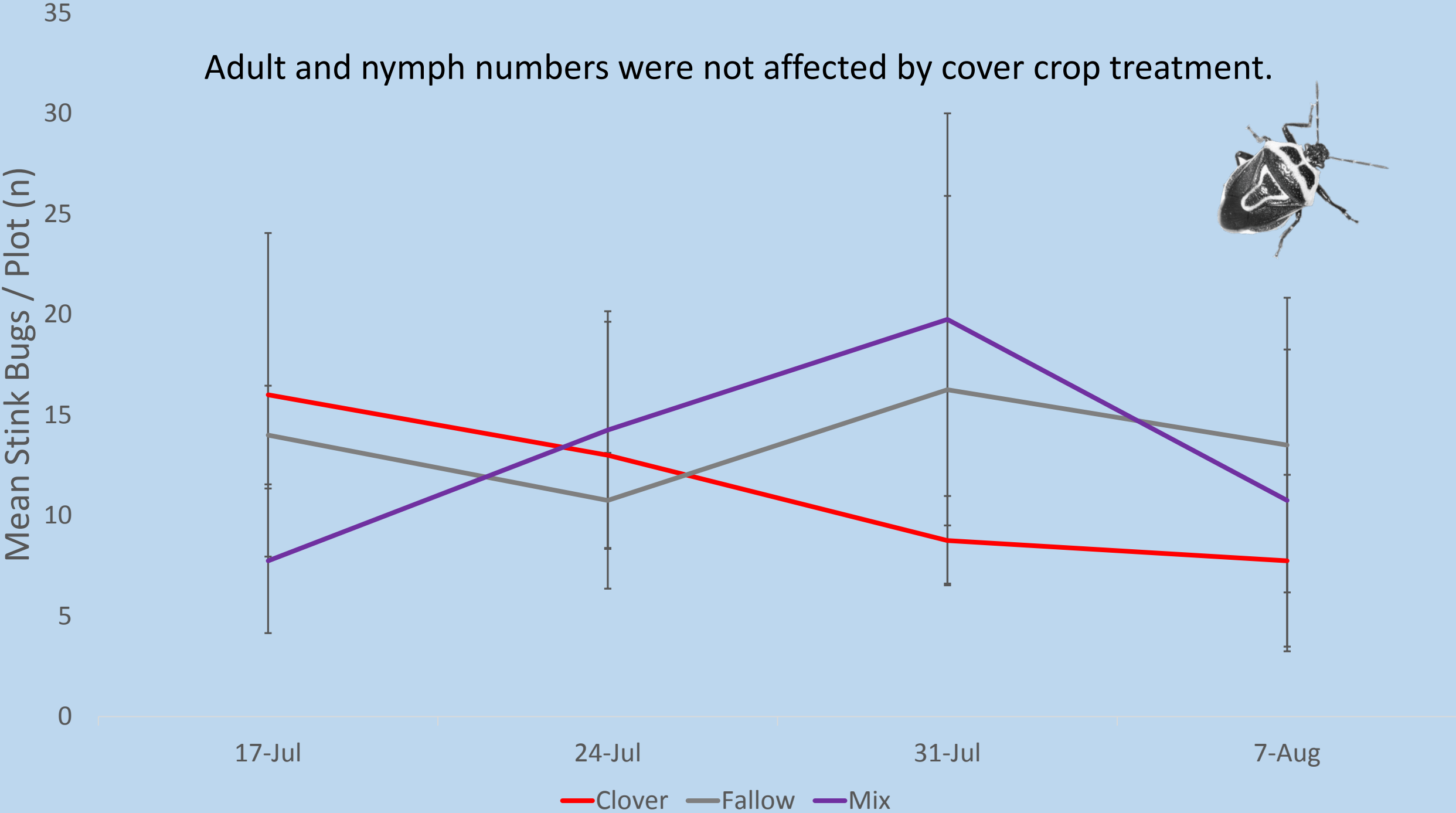


There were more larvae in the clover-rye treatment late in the season.

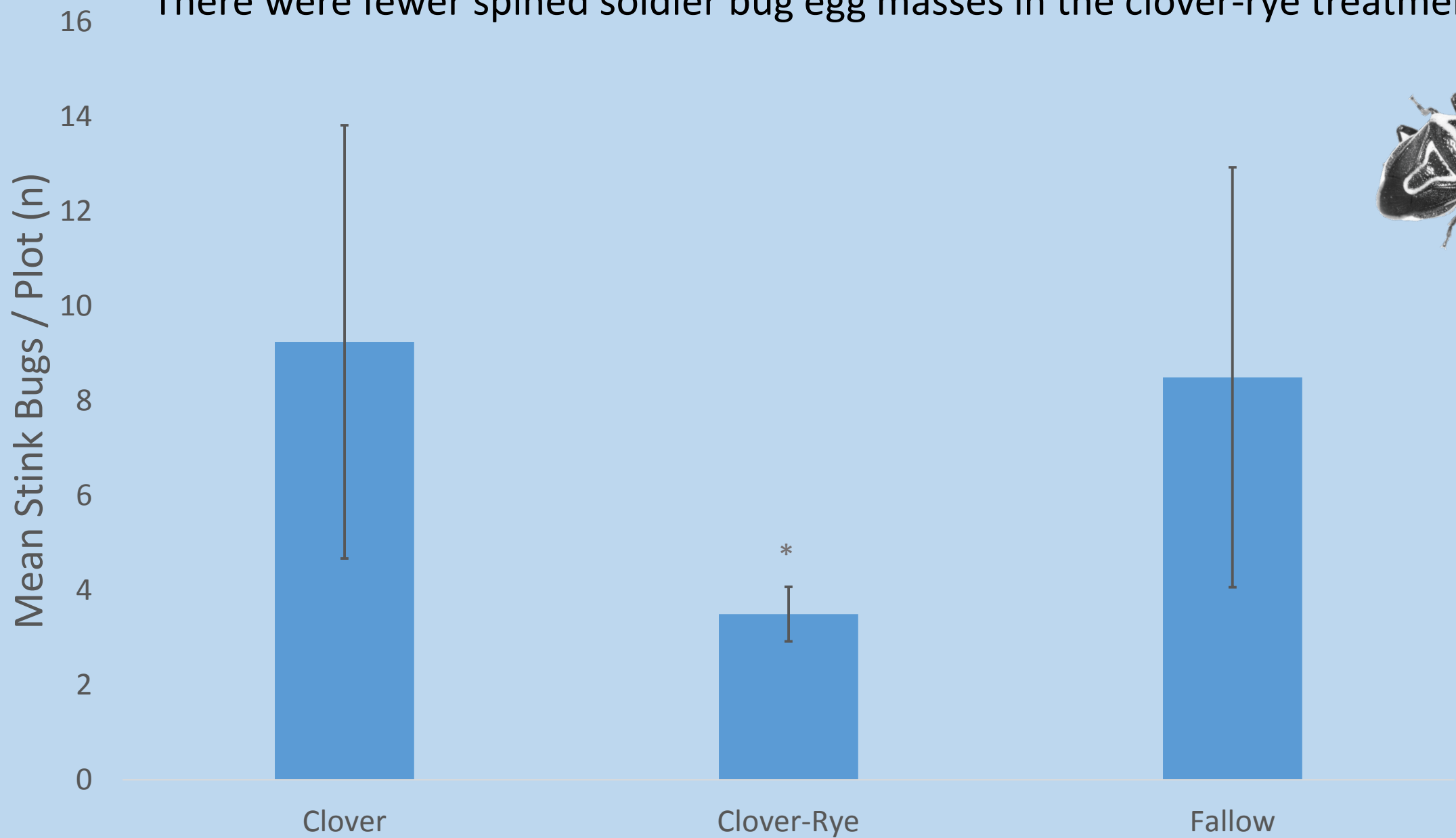




Adult and nymph numbers were not affected by cover crop treatment.



There were fewer spined soldier bug egg masses in the clover-rye treatment.



The spined soldier bug eggs laid in the clover-rye treatment did not survive.

Successfully Hatching Spined Soldier Bug

Eggs

25%
20%
15%
10%
5%
0%

Clover

Fallow

Mix

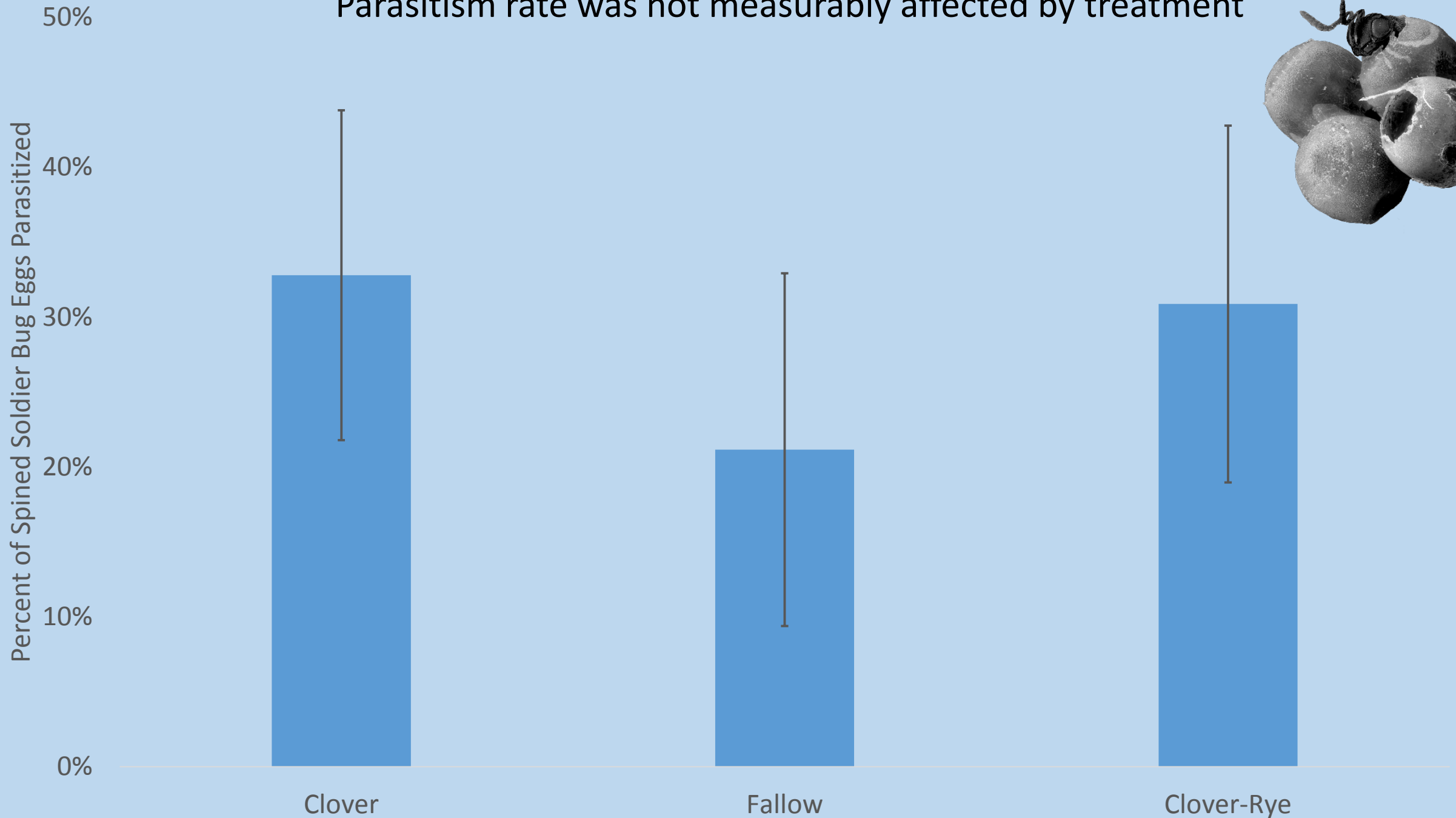
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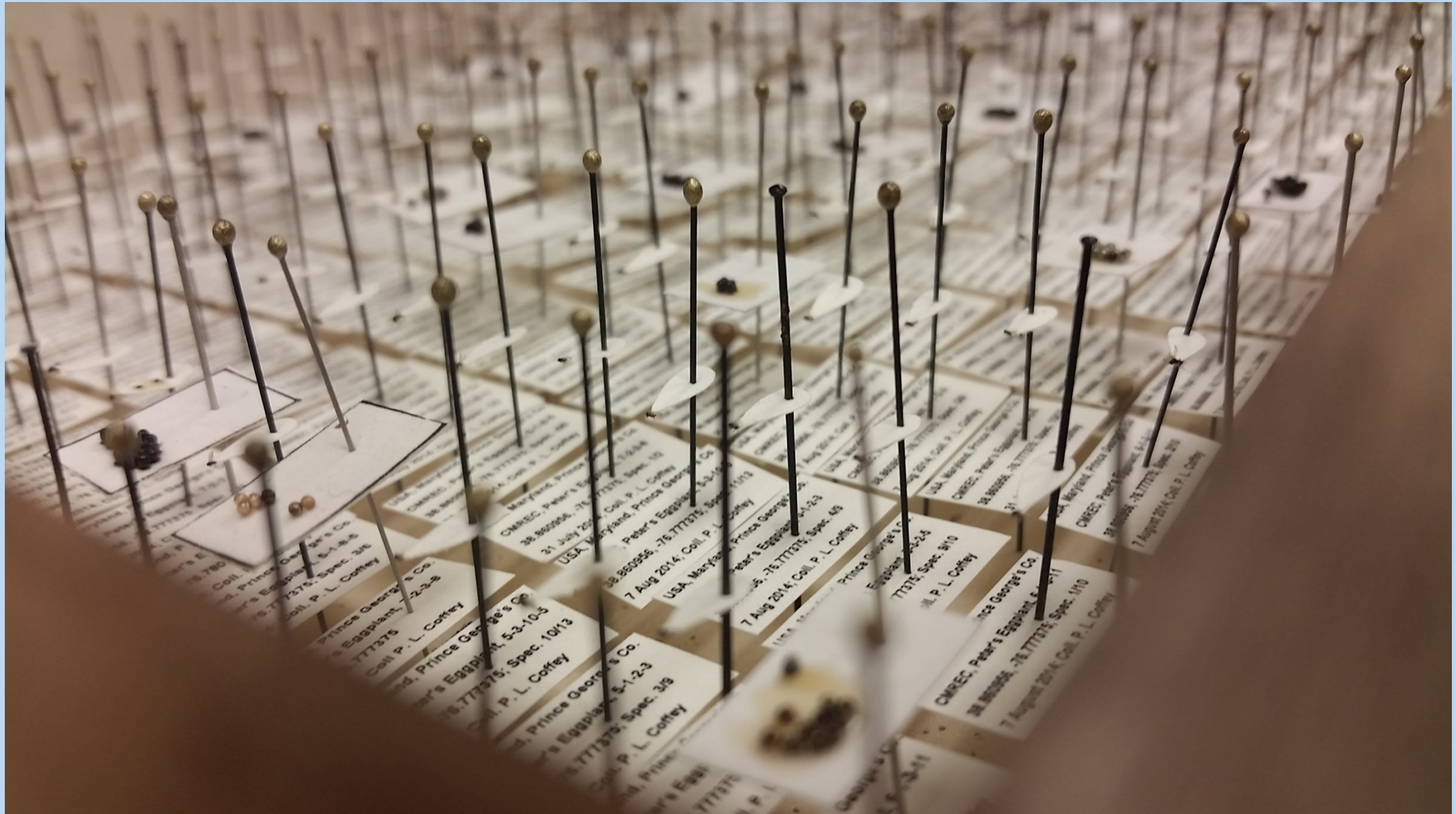




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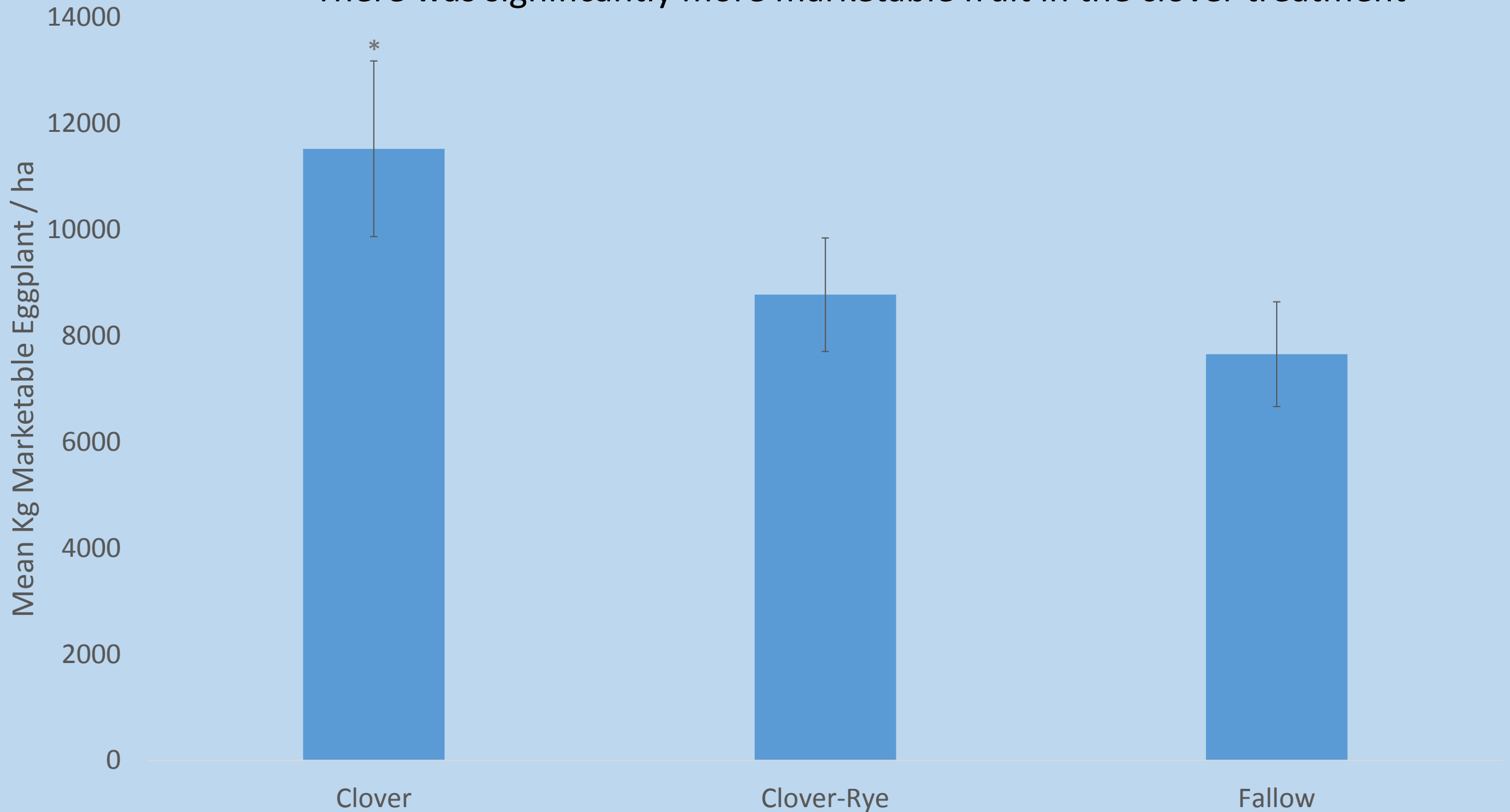
Parasitism rate was not measurably affected by treatment





Identification of parasitoids reared from all egg masses will allow us to compare parasite populations

There was significantly more marketable fruit in the clover treatment



- The clover-rye mix underperformed the clover alone, and had higher pest numbers.
- Predators avoided ovipositing in the clover-rye mix, and failed to hatch when they did.
- Ongoing research is investigating if the cover crop treatments may be altering the parasitoid population in the field.

