

Mite-Away Quick Strips (MAQS)

Formic acid (46.7%)

Recommended dose: **2 strips per treatment**

Treatment period: 7 days

Temperature range: **50-92°F**

Excessive temperatures (>95°F can cause excessive brood mortality and absconding)

Kills male and female mites in capped cells
(advantage: mite reproduction is restricted)



Dead newly emerging bees on the frames closer to the formic acid strips

Preliminary Results

- Efficacy of MAQS: **95 %**
- Brood loss: Expect some brood damage especially on the frames closer to where the formic acid strips are placed.
- No significant queen loss due to MAQS.

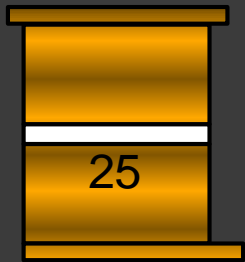
Some important tips when using MAQS

- ⦿ Works well to reduce mite loads (kills mites in capped cells).
- ⦿ Larger colonies appear to aerate the fumes well hence less problems in larger hives.
- ⦿ Better ventilation helps reduce significant brood loss and chances of queen loss.
- ⦿ Smaller colonies may need smaller dose.
- ⦿ Please use this product at appropriate time, temperatures and colony nutritional environment.

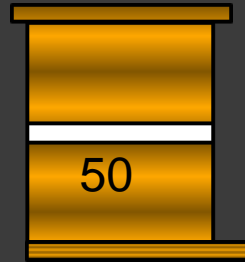
Evaluation of Apiguard

- ◎ **Thymol**
- ◎ **Formulation: slow release gel**
- ◎ **Dose: 50 gm**
- ◎ **Number of applications: 2**

Materials and Methods



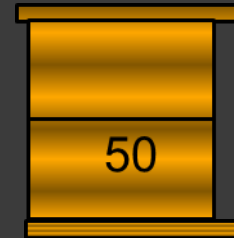
Middle



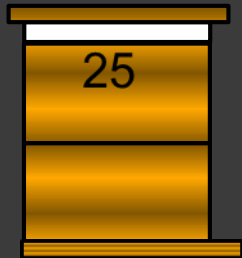
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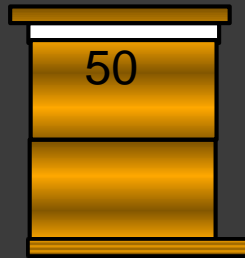
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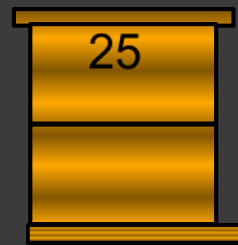
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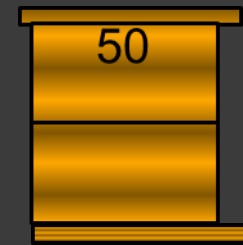
Top



Top



Top



Top

Two different doses: **25 and 50 gms**

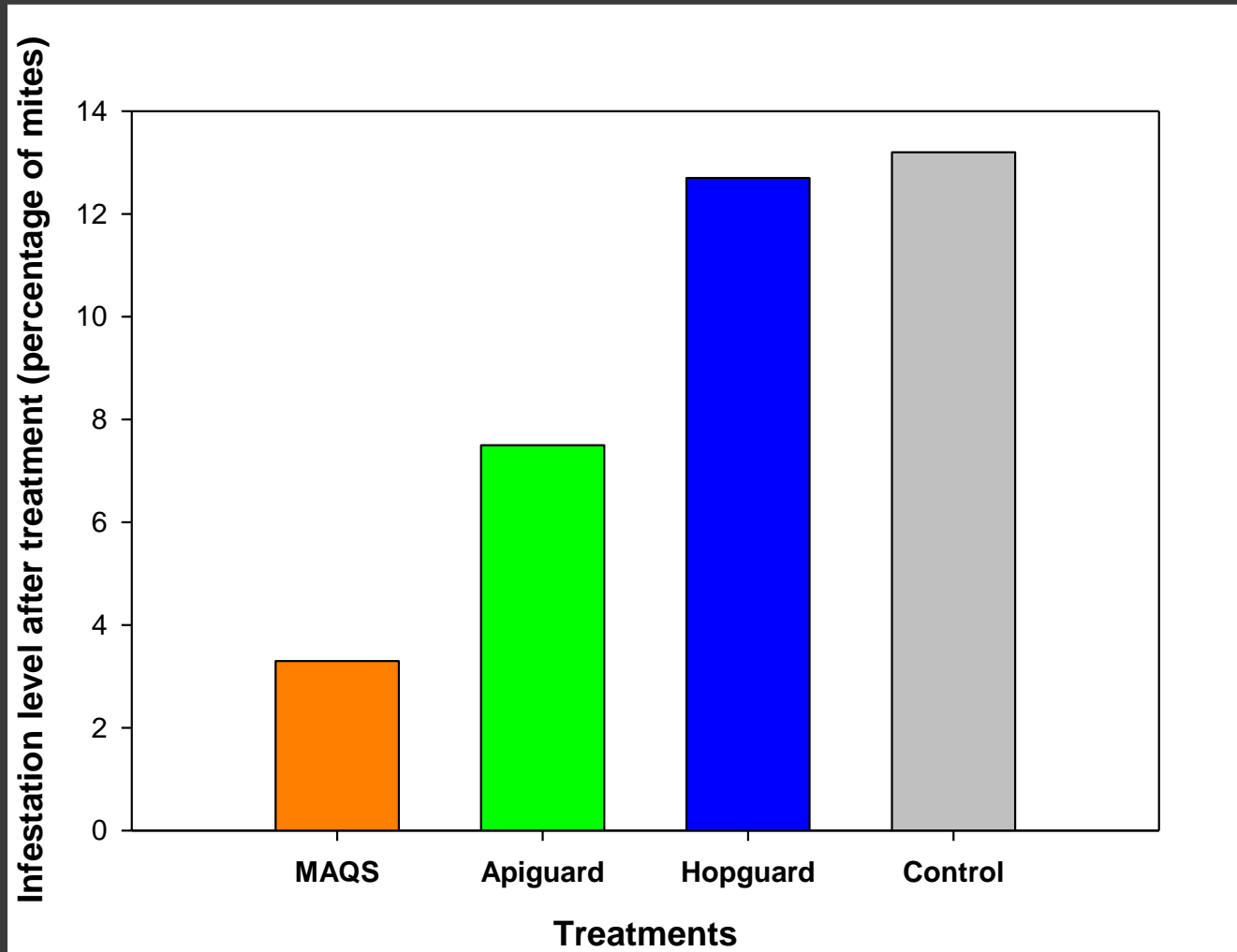
Two positions: **Top and middle**

Spacers: **With and without**

Treatment	% age decrease in brood (uncapped + capped)	Mite mortality
50 gm on top with spacer	<u>18</u>	77
50 gm in middle with spacer	26	<u>86</u>
50 gm on top without spacer	26	73
50 gm in middle without spacer	<u>39</u>	80
25 gm on top with spacer	26	75
25 gm in middle with spacer	22	<u>84</u>
25 gm on top without spacer	26	71
25 gm in middle without spacer	<u>37</u>	82

No Queen loss observed in any of the experimental hives

Efficacy of MAQS, Apiguard and Hopguard



MAQS provides the best *Varroa* control among the three products compared

Amitraz (Apivar)

- ⦿ **Contact miticide (3.33% Amitraz)**
- ⦿ **2 strips per brood chamber**
- ⦿ **Recommended treatment: One Treatment in spring and or one treatment in Fall**

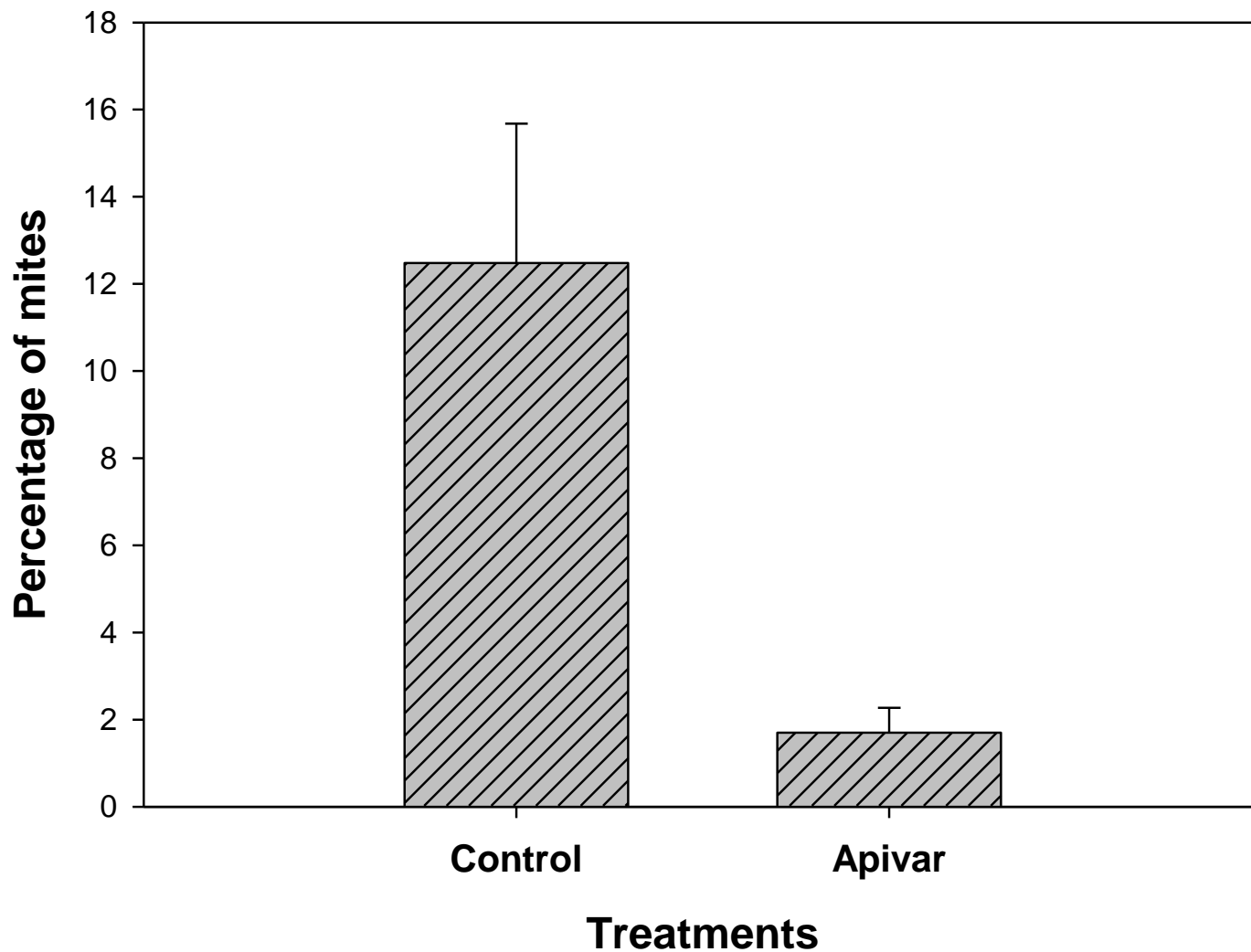
Evaluating Apivar Efficacy

- ◎ **Start date: 8-22-13**
- ◎ **6 weeks (42 day) treatment**
- ◎ **2 strips per brood chamber**
- ◎ **Mite populations monitored by using mite boards and alcohol wash methods.**

Percent Control Obtained by **Apivar**

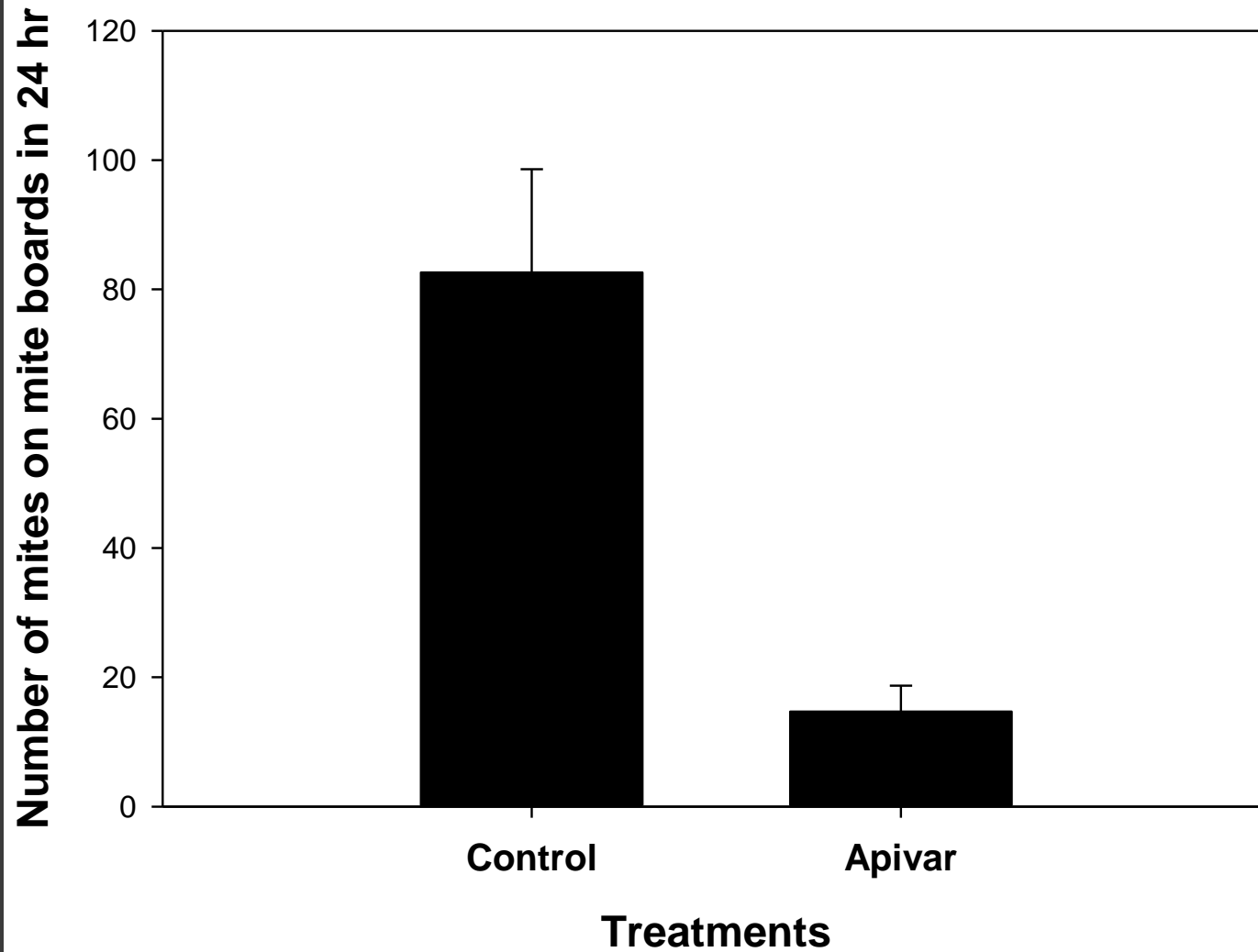
87 %

Percentage of mites recorded 6 weeks after initiation of Apivar treatment



($P < 0.05$)

Mite counts 8 weeks after initiation of Apivar treatment



($P < 0.05$)

Average mite drop temporal pattern after initiation of Apivar treatment

	First 3 days	One week later	Two weeks later
Average number of mites observed on mite boards	372	259	252

Average mite drop temporal pattern in control hives

	First 3 days	One week later	Two weeks later
Average number of mites observed on mite boards	32	65	61

Some important considerations when using Apivar

- ⦿ Results can be variable depending on factors such as: Dose and placement of strips.
- ⦿ **Appears to decrease mite populations gradually.**
- ⦿ Using in spring may be the best option.
- ⦿ **Risk of resistance development....resistance development can be delayed following removal directions and rotating with other available options.**