Gall Mite Trials In NZ

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Gall Mite status in New Zealand

- The pest is an issue in Canterbury and in southern areas of NZ
- Not present in Nelson district
- Reversion has been found on only 3 existing properties
- A newly released cultivar “Blackadder” is particularly sensitive to gall mite

Movento (Spirotetremat)

- Used post harvest in late autumn last season
- No effect expected on gall mite
- BUT……

What we expected

What we found – in 60 % of galled buds!

New Trials 2011/12

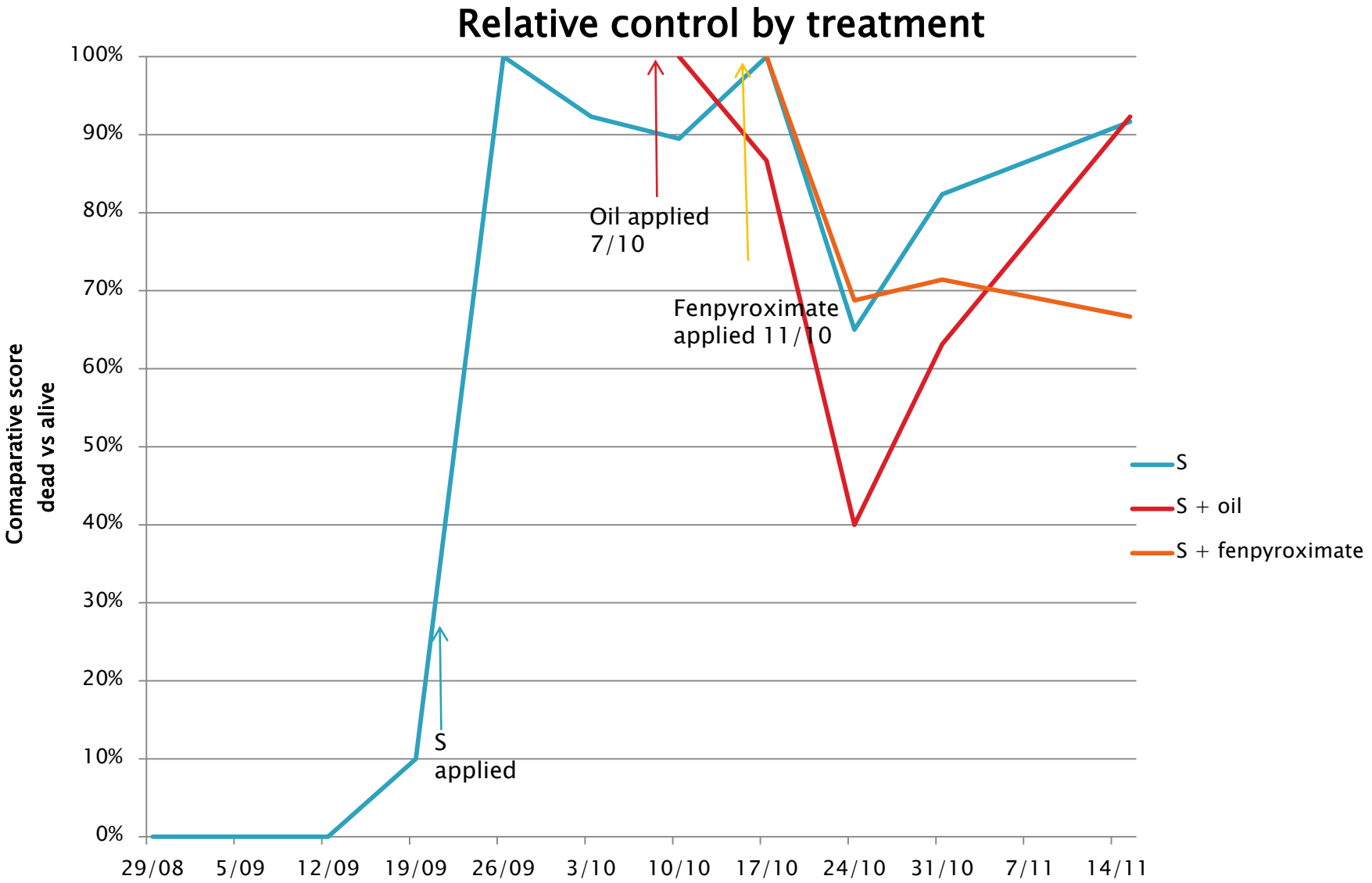
- Looked at gall mite (GM) emergence
- Looked at effective sulphur life
- Looked at the use of spraying oil over flower (in conjunction with sulphur at first GM emergence)
- Looked at fenpyroximate use over flowering (also in conjunction with sulphur at first GM emergence)
- Used Movento in association with all of the above treatments post harvest

GDD and Communication

- Jerry Cross model uses Growing Degree Days (GDD) Base 4°C
  - 1st emergence – 122 hours
  - 5% emergence – 199 hours
  - 50% emergence – 316 hours
- 1st emergence 12th September = 111 hours
- No difference between cultivars despite different growth stages
- Used Google Groups e-mail to let all blackcurrant growers know emergence results and GDD data each week

Treatments

- Treatment 1: Sulphur applied 20th September 2011– First emergence –also applied to treatments 2&3
- Treatment 2: JMS oil applied 7th October:
- Treatment 3: Fenpyroximate applied 11th October:
- 3 replicates – not randomised
- Applied to a growers commercial field
- Movento applied to half the treatments on 20th January 2012 (after harvest)


Relative control by treatment
Comaparative score
dead vs alive
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
29/08
5/09
12/09
19/09
26/09
3/10
10/10
17/10
24/10
31/10
7/11
14/11
Oil applied
7/10
Fenpyroximate
applied 11/10
S
applied
S
S + oil
S + fenpyroximate

Autumn galled bud counts – March 15

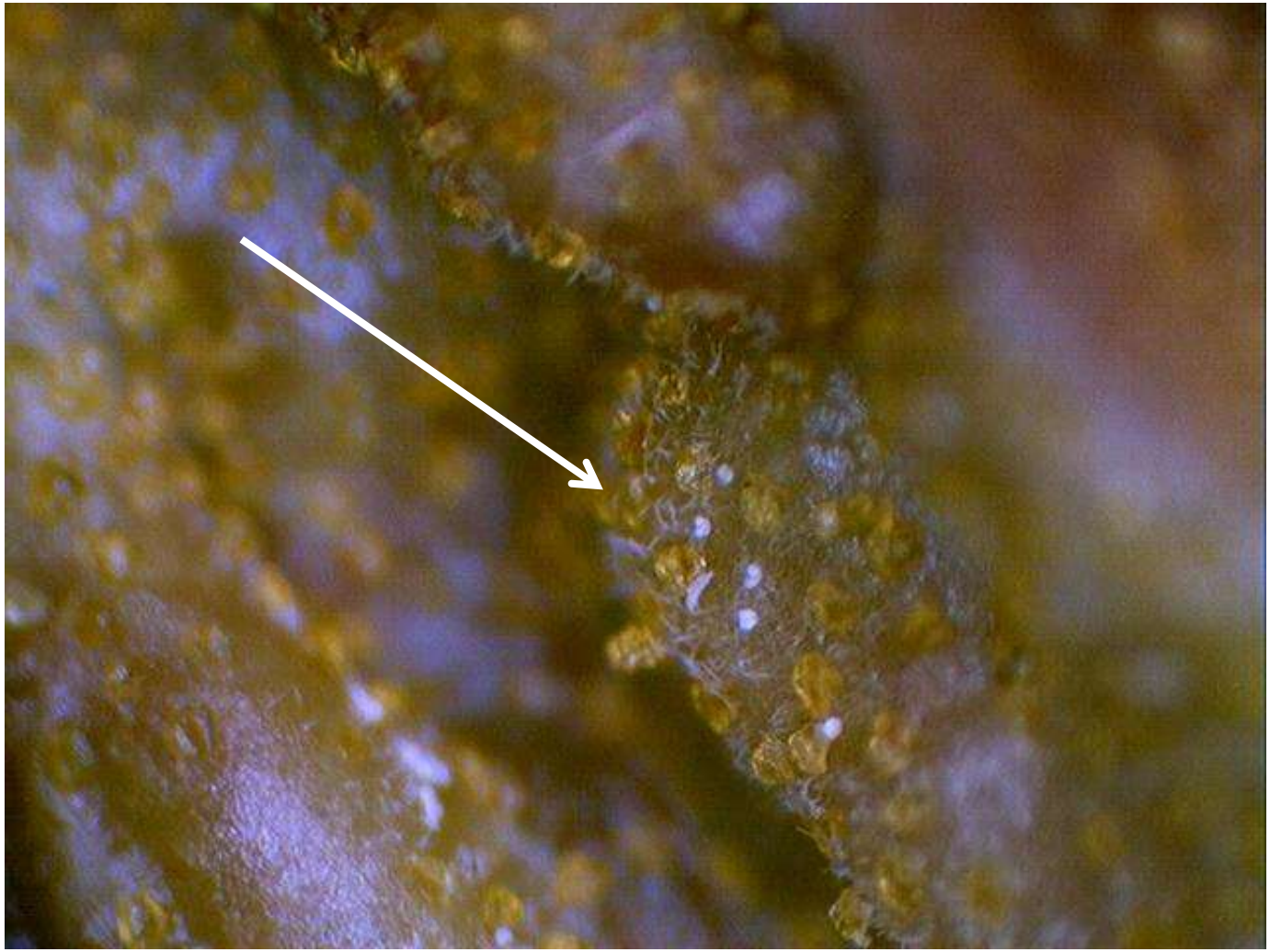
Treatment	Mean galled buds/bush
Sulphur only	9.0
S plus Oil	9.2
S plus Fenpyroximate	12.0

- No difference in Movento treated areas at this stage
- These numbers account for about 1–2% of the total buds on the bush

Effective sulphur life

- Sulphur applied 20th September at 10kg/ha
- Still working on 14th November – 56 days later!
- Some gall mite still alive at the latest date in "cabbage buds"
- Percentage control needs to be very high because of huge numbers in each bud

Types of galled bud

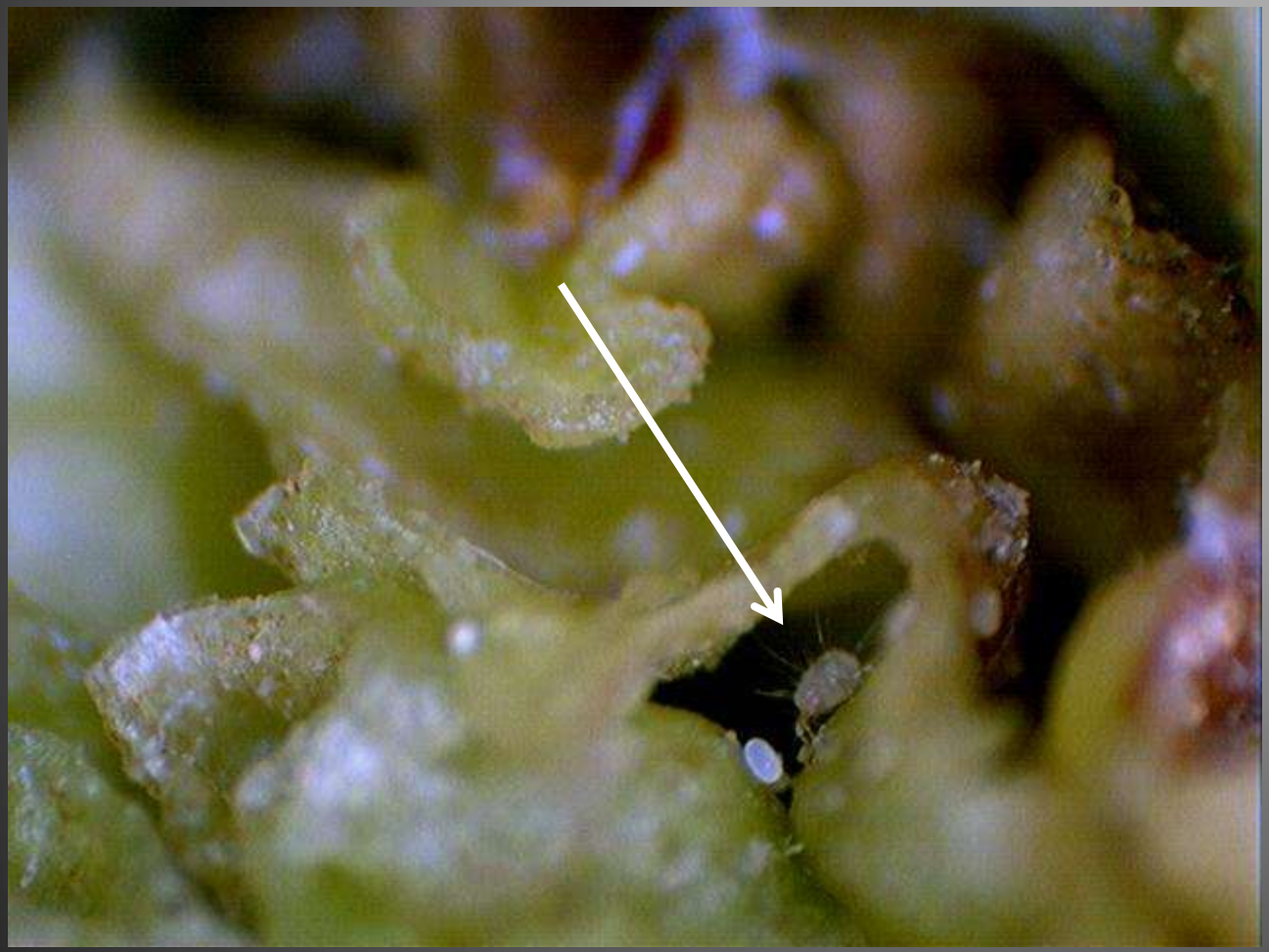


Early emerging mites curled

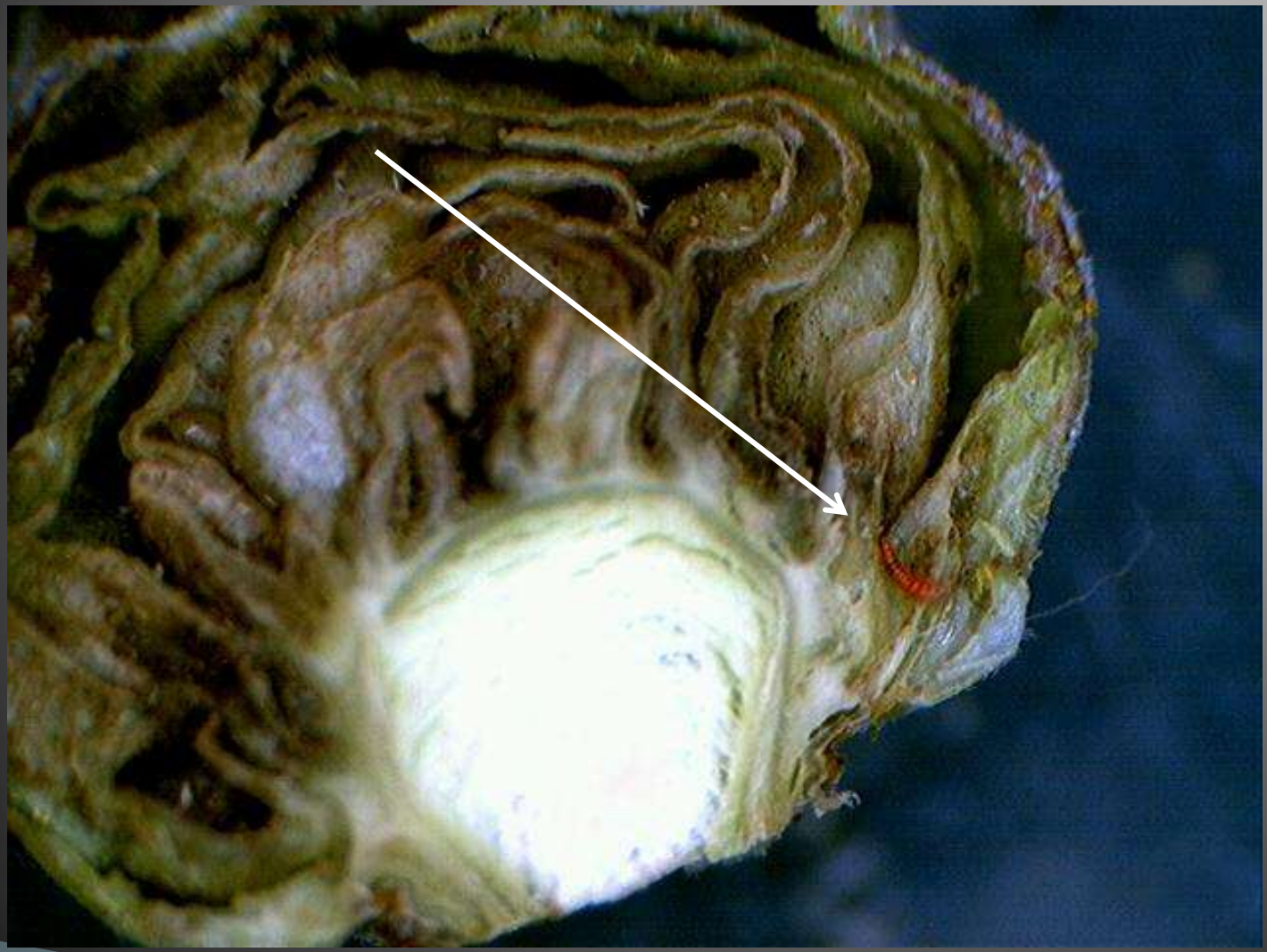
Emerging mites

Other biology – *Verticillium lecanii*

Tydeid mites



Thrips



Spray coverage

Sulphur gives a good indication of the type of spray coverage achieved – buds on left, leaves on right

Summary

- Growing degree day calculations, (Jerry Cross model) reflected emergence patterns well in New Zealand conditions
- A single Sulphur application at 10kg/ha applied at first emergence was as good as any other treatment
- Movento might be a useful product late season?