



Pollination Symposium 2009

Danny Le Feuvre
Australian Bee Services






Background


- Ag Consulting Co - Ardrossan
 - Farm Consultants, Research
 - 8 yrs research experience
- Alkaline Soils Group
 - Farming systems group
- Australian Bee Services
 - Pollination service business



Australian Bee Services


- Formed in 2007 as a result of broadacre pollination demand and need for research
- Pollination
 - Broadacre pulse, Almonds, Apples, Pears, Cherries and Lucerne.
- Queen Breeding – CJ Coleman
 - Proactively selecting for Varroa tolerance and improved production
- Research
 - Large research program covering number of crop types
 - Collaborating research partners include CSIRO, SARDI.

Australian Bee Services

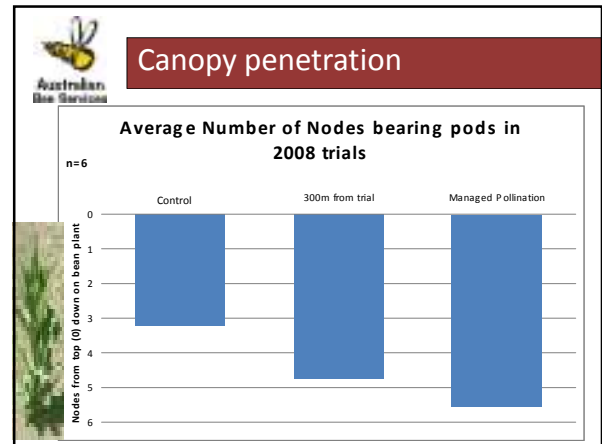
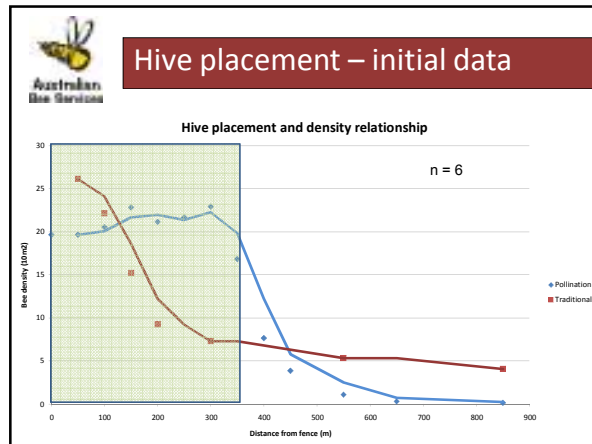
Ausindustry – Climate Ready - Innovation Grant

- Across multiple crop types – 2 years
 - Aim is to assess 'USA' high density style of Lucerne pollination compared to traditional methods
- Will compare 8 hives/ha to traditional 2 hives/ha
- Collaborating with CSIRO and SARDI entomologists to ensure independence and scientific rigor



Why 8 hives per ha?

- 12,000 flowers/m² (K.M.Doull, 1960, CSIRO)
- 1 bee/1000 flowers (J.B.Free, 1960)
- 10-15 bees actively collecting pollen per m²
- 120,000 bees/ha
- Average colony strength of 40,000 bees
- Average ratio of pollen collectors 40%
- Therefore 8 hives/hectare would give us 16,000 pollen collecting bees or (8 x 16,000) 120,000 bees per hectare



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- Down side of high bee density**
- Low honey production
 - Higher cost to apiarist
 - Increased level of stress on colonies
 - Limited number of hives available for pollination

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- UP side of high bee density**
- Highest possible number of flowers visited
 - Potentially higher yield?
 - Increased gross margin?

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- Knowledge Gap**
- What we need to know
- **Economic Matrix** – does ↑ hive density produce economically higher yields
 - At what cost is ↑ hive density to honey production

We need you....

We need growers that are prepared to participate

- Looking for 10 small (<20ha) flood/pivot 2nd yr lucerne stands

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