

# Honey Bee Nutrition

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# Honey Bee Nutrition

- Pollen provides proteins, amino acids, lipids, carbohydrates, vitamins and minerals
- Bees will mix pollen with nectar
  - Inoculate with microorganisms
  - Helps preserve it
  - Reduces the pH through fermentation
  - Improves the pollen's digestibility and nutritional value
  - Typically called bee bread

# Feeding Bees Pollen Substitutes

- My bees refused to consume patties
  - I was using Mega Bee and sugar syrup
  - Tried it dry but the bees would not touch it
  - Even mixed it with honey
- Randy Oliver commented on the difficulty of getting bees to eat patties in ABJ
  - He referenced a research paper on effects of fermentation on bee consumption of patties

# The Research Paper

- “An Evaluation of Fresh versus Fermented Diets for Honey Bees” by Amanda Ellis and G. W. Hayes
- Published in Journal of Apicultural Research and Bee World in 2009

# Results of Research

- They used Silk Soy Yogurt to inoculate soy flour patties
  - They found the fermented soy flour patty resulted in a significant diet effect
  - They observed less debris
  - The fermented patties were stable and easily stored at room temperature
  - Concluded the fermented patties were consumed rather than being removed from the hive
  - Made no determination on improvement of bee health

# My Results

- I used Mega Bee and mixed it with Silk Soy Yogurt and sugar syrup
- I added some honey
- Placed patties on 9 hives
- Inspected hives in two week and found all patties were gone
  - Previous efforts resulted in patties staying in the hives for over two months
    - At that point I removed the patties

# My Conclusion

- The process of fermenting Mega Bee with Silk Soy Yogurt resulted in the bees consuming the patties
- I cannot say if the patties improved the bee hives
- It was my intention to repeat the process this year but I forgot to take the material with me when I went to the farm last week