

## POLLEN SUBSTITUTES

Winston on pollen substitutes (see spring 2018 BeesCene)

"I don't remember the paper specifically, but I think it was Christina Grozinger. It's been standard practice for many decades to feed pollen supplement in late winter, for the logical reason that it boosts colony populations to take advantage of spring honey flows, and also for pollination rentals. And spring supplement feeding does indeed create more bees. There are two issues though, the first being that beekeepers need to be effective at controlling swarming, since the higher populations will be associated with a higher likelihood of spring swarming.

The second issue is more problematic, and that is these recent studies indicating that workers fed pollen supplement have somewhat diminished immune systems and pesticide detoxification ability due to the inferior quality of that food compared to pollen. So it's a tradeoff: more bees, yes, but each bee might be a bit weaker, more susceptible to disease and pesticides. This is an important area for research, and at this point it's more beekeeper judgment than data, but for those having particularly difficult disease and pest issues, they might want to try not feeding supplement and see what happens."

Grozinger : <https://www.ncbi.nlm.nih.gov/pubmed/25450567>

There was also this press

release: <http://news.psu.edu/story/332959/2014/11/03/research/diet-affects-pesticide-resistance-honey-bees>

Richard Jones (formerly of IBRA) recently helped write a book on honey bee nutrition, says it will be groundbreaking - they just sent it to print.