



## Inhibition of Honeybee Diseases by Probiotic Bacteria

### ***Nosema ceranae* and *Nosema apis***

Beneficial Effects of *Bacillus subtilis* subsp. *subtilis* Mori2, a Honey-Associated Strain, on Honeybee Colony Performance (nosemosis and varroosis increased egg laying)

<https://link.springer.com/article/10.1007/s12602-011-9089-0>

Deleterious Interaction Between Honeybees (*Apis mellifera*) and its Microsporidian Intracellular Parasite *Nosema ceranae* Was Mitigated by Administrating Either Endogenous or Allochthonous Gut Microbiota Strains

<https://www.frontiersin.org/articles/10.3389/fevo.2018.00058/full>

Effect of bacterial metabolites on microsporidian *Nosema ceranae* and on its host *Apis mellifera*

<https://link.springer.com/article/10.1007%2Fs00436-010-1875-1>

Effects of the organic acids produced by a lactic acid bacterium in *Apis mellifera* colony development, *Nosema ceranae* control and fumagillin efficiency ( incremented beehive population and fat bodies per bee)

<https://www.sciencedirect.com/science/article/pii/S0378113513003933>

### ***American Foul Brood / Paenibacillus larvae***

Inhibition of *Paenibacillus larvae* by lactic acid bacteria isolated from fermented materials

<https://www.sciencedirect.com/science/article/pii/S0022201112002406>

Novel lactic acid bacteria inhibiting *Paenibacillus larvae* in honey bee larvae

<https://link.springer.com/article/10.1051/apido/2009065>

Properties of different lactic acid bacteria isolated from *Apis mellifera* L. bee-gut

<https://www.sciencedirect.com/science/article/pii/S0944501310000042>

Honeybees (*Apis mellifera*), having an in vitro inhibitory effect on the causative agents of American and European foulbrood

[https://www.researchgate.net/publication/257463037\\_Lactobacillus\\_apis\\_sp\\_nov\\_from\\_the\\_stomach\\_of\\_honeybees\\_Apis\\_mellifera\\_having\\_in\\_vitro\\_inhibitory\\_effect\\_on\\_causative\\_agents\\_of\\_American\\_and\\_European\\_Foulbrood#pf5](https://www.researchgate.net/publication/257463037_Lactobacillus_apis_sp_nov_from_the_stomach_of_honeybees_Apis_mellifera_having_in_vitro_inhibitory_effect_on_causative_agents_of_American_and_European_Foulbrood#pf5)

Read the science supporting SuperDFM-Honeybee at

**[www.strongmicrobials.com](http://www.strongmicrobials.com)**

in our Honeybee section under RESEARCH



## Inhibition of Honeybee Diseases by Probiotic Bacteria

<b><i>European Foulbrood / Melissococcus plutonius</i></b>
Inhibitory effect of gut bacteria from the Japanese honey bee, <i>Apis cerana japonica</i> , against <i>Melissococcus plutonius</i> , the causal agent of European foulbrood disease <a href="https://academic.oup.com/jinsectscience/article/14/1/129/2386980">https://academic.oup.com/jinsectscience/article/14/1/129/2386980</a>
Honeybees ( <i>Apis mellifera</i> ), having an in vitro inhibitory effect on the causative agents of American and European foulbrood <a href="https://www.researchgate.net/publication/257463037_Lactobacillus_apis_sp_nov_from_the_stomach_of_honeybees_Apis_mellifera_having_in_vitro_inhibitory_effect_on_causative_agents_of_American_and_European_Foulbrood#pf5">https://www.researchgate.net/publication/257463037_Lactobacillus_apis_sp_nov_from_the_stomach_of_honeybees_Apis_mellifera_having_in_vitro_inhibitory_effect_on_causative_agents_of_American_and_European_Foulbrood#pf5</a>
<b><i>Chalk brood / Ascospaera apis</i></b>
Chalkbrood: pathogenesis and the interaction with honeybee defenses <a href="https://www.researchgate.net/publication/313695220_Chalkbrood_pathogenesis_and_the_interaction_with_honeybee_defenses">https://www.researchgate.net/publication/313695220_Chalkbrood_pathogenesis_and_the_interaction_with_honeybee_defenses</a>
Inhibition of <i>Paenibacillus larvae</i> and <i>Ascospaera apis</i> by <i>Bacillus subtilis</i> isolated from honeybee gut and honey samples <a href="https://www.sciencedirect.com/science/article/pii/S0923250809000242">https://www.sciencedirect.com/science/article/pii/S0923250809000242</a>
Probiotics to the rescue <a href="https://www.lawsonresearch.ca/news/probiotics-rescue">https://www.lawsonresearch.ca/news/probiotics-rescue</a>
<b><i>Pesticides</i></b>
Probiotics improve survival rates in honey bees exposed to pesticide <a href="https://phys.org/news/2017-06-probiotics-survival-honey-bees-exposed.html">https://phys.org/news/2017-06-probiotics-survival-honey-bees-exposed.html</a>

Read the science supporting SuperDFM-Honeybee at  
**[www.strongmicrobials.com](http://www.strongmicrobials.com)**  
in our Honeybee section under RESEARCH