WHAT IS CLAIMED IS:

1. A composition comprising whole cells or cell wall fragments of at least one dead, non-disease causing bacterial species of a bacterial genus and a carrier.

2. The composition of claim 1, wherein the carrier is an insect food.

3. The composition of claim 1 or 2, wherein the non-disease causing bacterial species comprises the genus *Paenibaccillus*.

4. The composition of claim 1 or 2, wherein the dead, non-disease causing bacterial species is one or more of selected from the group consisting of *Paenibacillus alvei*, *Paenibacillus dentritiformis, Paenibacillus amylolyticus*, *Paenibacillus campinasensis*, *Paenibacillus chondroitinus*, *Paenibacillus chungangensis*, *Paenibacillus doosanensis*, *Paenibacillus glucanolyticus*, Paenibacillus humicus, *Paenibacillus lactis*, *Paenibacillus lautus*, *Paenibacillus lentimorbus*, *Paenibacillus maceran*, *Paenibacillus macerans*-like, *Paenibacillus macquariensis*, Paenibacillus motobuensis, *Paenibacillus pabuli*, *Paenibacillus phoenicis*, *Paenibacillus polymyxa*, Paenibacillus popilliae, *Paenibacillus puldeungensis*, *Paenibacillus residui*, *Paenibacillus stellife*, *Paenibacillus thiaminolyticus*, *Paenibacillus validus*, and *Paenibacillus xylanisolvens*, or a combination thereof.

5. The composition of claim 1or 2, wherein the composition comprises dead, non-disease causing bacterial species *Paenibacillus alvei* and *Paenibacillus dentritiformis*.

6. The composition of any of claims 1-5, wherein the composition comprises from about 1.5×10^7 to about 1.5×10^{11} antigen units of whole cells or cell wall fragments per gram of insect food or carrier.

7. A method for one or more of: vaccinating, treating or immunizing a bee queen or bee larvae against Foulbrood disease, comprising administering an effective amount of the composition of any of claims 1 to 6 to a bee selected from one or more of worker bees or nurse bees that feed the bee queen, bee larvae or the bee queen, thereby immunizing the queen bee or the bee larvae produced by the queen bee.

8. The method of claim 7, wherein the Foulbrood disease is caused by a species of *Paenibacillus*.

9. The method of claim 8, wherein the Foulbrood disease is American Foulbrood disease.

10. The method of any one of claims 7 to 9, wherein the composition comprises or consists essentially of one or both of *Paenibacillus alvei* or *Paenibacillus dentritiformis*.

11. The method of claim 10, wherein the Foulbrood disease is American Foulbrood disease and is caused by *P. larvae*.

12. The method of any one of claims 7 to 11, wherein the one or more of the queen bee, worker bees, nurse bees or the larvae are administering from about 1.5 x 10^7 to about 1.5 x 10^{11} antigen units of whole cells or cell wall fragments per dose.

13. The method of claim 12, wherein the one or more of the queen bee, worker bees, nurse bees or larvae are administered at least one, or at least two, or at least three, or at least four, or at least five, or at least six, or at least seven, or at least eight, or at least nine, or at least 10 dose(s) of from 1.5 x10^7 to about 1.5 x 10^{11} antigen units of whole cells or cell wall fragments of the dead, non-disease causing species of *Paenibacillus*.

14. A method for preventing or vaccinating against American foulbrood in a population of bees, optionally honeybees, comprising administering to a bee queen, a composition comprising whole cells or cell wall fragments of at least one dead, non-disease species of *Paenibacillus*.

15. The method of claim 14, wherein the dead non-disease species of *Paenibacillus* are selected from one or more from the group consisting of *Paenibacillus alvei*, *Paenibacillus dentritiformis, Paenibacillus amylolyticus*, *Paenibacillus campinasensis*, *Paenibacillus chondroitinus*, *Paenibacillus chungangensis*, *Paenibacillus doosanensis*, *Paenibacillus glucanolyticus*, Paenibacillus humicus, *Paenibacillus lactis*, *Paenibacillus lautus*, *Paenibacillus lentimorbus*, *Paenibacillus maceran*, *Paenibacillus macerans*-like, *Paenibacillus macquariensis*, *Paenibacillus motobuensis*, *Paenibacillus pabuli*, *Paenibacillus phoenicis*, *Paenibacillus polymyxa*, *Paenibacillus popilliae*, *Paenibacillus puldeungensis*, *Paenibacillus residui*, *Paenibacillus stellife*, *Paenibacillus thiaminolyticus*, *Paenibacillus validus*, and *Paenibacillus xylanisolvens*, or a combination thereof.

16. The method of claim 14, wherein the dead non-disease species of *Paenibacillus* are dead *Paenibacillus alvei* or *Paenibacillus dentritiformis*, or a combination thereof.

17. The method of any one of claims 14 to 16, wherein the administering comprises feeding one or more of the queen bee, worker bees, nurse bees or larvae a suitable amount of queen feed comprising from about 1.5×10^7 to about 1.5×10^{11} antigen units per dose of at least one dead non-disease species of *Paenibacillus* whole cells or cell wall fragments thereof.

18. The method of claim 17, wherein the Foulbrood disease is American Foulbrood and is caused by *P. larvae*.

19. The method of any one of claims 14 to 18, wherein the composition comprises or consists essentially of one or both of *Paenibacillus alvei* or *Paenibacillus dentritiformis*.

20. The method of claim 21, wherein the Foulbrood disease is American Foulbrood disease.

21. The method of any one of claims 14 to 19, wherein the one or more of the queen bee, worker bees, nurse bees or the larvae are administering from about 1.5×10^7 to about 1.5×10^{11} antigen units of whole cells or cell wall fragments per dose.

22. The method of claim 21, wherein the one or more of the queen bee, worker bees, nurse bees or larvae are administered at least one, or at least two, or at least three, or at least four, or at least five, or at least six, or at least seven, or at least eight, or at least nine, or at least 10 dose(s) of from about 1.5×10^7 to about 1.5×10^{11} antigen units of whole cells or cell wall fragments.

23. A method for preparing an insect composition or vaccine comprising isolating whole cells or cell wall fragments from at least one dead, non-disease causing bacterial species of a bacterial *Paenibaccilus*.

24. The method of claim 23, further comprising admixing the isolated antigen units with an insect food.

25. The method of claim 24, wherein the insect food is selected from a queen bee wafer, a sugar eater, a spirulina supplement, queen candy in the shipping container, a queen cell, an insect supplement.

26. The method of claim 25, wherein the non-disease causing bacterial species is a species of the genus *Paenibaccilus,* optionally one or both of *Paenibacillus alvei* or *Paenibacillus dentritiformis*, or a combination thereof.

27. The method of claim 26, wherein the dead *Paenibaccilus* species is selected from one or more of the group consisting of *Paenibacillus alvei*, *Paenibacillus dentritiformis, Paenibacillus amylolyticus*, *Paenibacillus campinasensis*, *Paenibacillus chondroitinus*, *Paenibacillus chungangensis, Paenibacillus doosanensis, Paenibacillus glucanolyticus, Paenibacillus humicus, Paenibacillus lactis, Paenibacillus lautus, Paenibacillus lentimorbus, Paenibacillus maceran, Paenibacillus macerans-like, Paenibacillus macquariensis, Paenibacillus motobuensis, Paenibacillus pabuli, Paenibacillus phoenicis, Paenibacillus polymyxa, Paenibacillus popilliae, Paenibacillus puldeungensis, Paenibacillus residui, Paenibacillus stellife, Paenibacillus thiaminolyticus*, *Paenibacillus validus*, and *Paenibacillus xylanisolvens*, or a combination thereof

28. The method of claim 27, wherein the dead *Paenibaccilus* species are *Paenibacillus alvei* and *Paenibacillus dentritiforms.*

29. The method of any one of claims 23 to 28, further comprising formulating the isolated whole cells or cell wall fragments to provide from about 1.5×10^7 to about 1.5×10^{11} antigen units per dose.

30. A composition prepared by a method of any one of claims 23 to 29.

31. A vaccine composition prepared by a method of any one of claims 23 to 29.

32. A kit comprising the composition of any one of claims 1-6, and instructions for use.