## PRODUCT FACT SHEET FOR SUPER DFM HONEYBEE MICROBIAL

- The microbials in the product mylar bag are dormant / sleeping
- The product needs to be applied DRY, not in wet patties and not in Sugar water bee feed
- Each hive should receive a minimum of ten grams of super dfm honeybee product
- Ten grams is about one (1) Table spoon of product its OK to use more, it will not harm the bees.
- The product should be mixed with a carrier like powder sugar or dry mega bee when applied
- We suggest enough carrier to dust the brood frame top bars and the nurse bees about 1/2 cup to one cup
- The product shelf life at room temperature, dry and in a sealed mylar bag is two (2) years
- The product shelf life at cold temperature, dry and in a sealed mylar bag is five (5) years
- The product should be applied in the spring with all splits receiving a treatment
- The product should be fed during high stress conditions, nectar or pollen dearth and pollination relocation
- The product should be used in late Summer before winter (fat) bees are created
- Microbials are activated by water and warmth
- Oxygen and ultraviolet light are harmful to both the bacteria and yeast
- Microbials replicate if nutrients are available
- The desired location for replication is inside the GIT of the honey bee
- Must awaken in the anerobic (with-out oxygen) environment of the gastrointestinal tract (GIT) of the honeybee.
- If the microbials consume all of the available nutrients, they starve and essentially die
- The population of microbials in the GIT of the honeybee are self limiting by design
- An over population of beneficial microbials is impossible
- The microbials are replicated by the nurse bees sharing food in the brood nest
- Baby bees are born without the beneficial microbial, they need inoculation by nurse bees
- Pollen collected by foragers needs beneficial microbials to complete the transformation into bee bread
- Most varroa mite treatments are anti microbial by nature
  - Formic acid mite away
  - Thymol based essential oils
  - Oxalic acid
- Varro treatments should be applied two weeks before the microbial inoculation, not after
- All foulbrood treatments are anti microbial these are pharmaceutical Drugs
  - Terramycin (oxytetracycline)
  - Tylan tylosin tartrate
  - Lincomycin hydrochloride
- Foul brood treatments should be applied two weeks before microbials inoculation
- If antibiotics are applied after the microbial treatment, they will damage the beneficial bacteria
- Most nosema treaments are anti microbial
  - Nozevit
  - Fumagilin (Fumidil B)
  - Honeybee Healthy lemon grass oil and spearmint oil
- Nosema treatments should be applied two weeks prior to a microbial inoculation, not after
- If Nosema treatments are applied after the microbial treatment, they will damage the beneficial bacteria
- If beneficial microbials like lactobacillus are diminished, pathogens will express and dominate
- Chalk brood, European foul brood, American foul brood and Nosema are suppressed by microbial activity
- Beneficial microbes should Not be used as a treatment for infected hives
- The good Bacteria and yeast are only able to compete with the pathogens, they do not kill them
- Foragers bring pathogens into the hive and beekeepers my also contaminate the hive with dirty hive tools
- Dead out hives with clean reusable combs should be sterilized with sun light, bleach water or acetic acid
- The Super DFM honey product is not effective against Viruses, nor is it a Varroa Mite treatment
- Half of the active agents in the product are designed to create a positive environment for the good bacteria
- Last, the product is not a silver bullet, it is only a tool to be used by the beekeeper nothing more nothing less