

COW URINE THERAPY- Sanjivani for Honey Bees (A World Wide Novel Approach)

Honey bees are wonderful creatures which have fascinated mankind since the dawn of civilization.. Besides producing sweet honey, beeswax and several other products of medicinal and commercial value, the honey bee enhances crop productivity and helps in conservation of global biodiversity by propagation of plant species and maintains stability of ecosystems. The success of beekeeping depends on understanding the biology and behavior of honeybees, proper management techniques including knowledge of their diseases and enemies, and equipment for handling them. Honey bees like all other creatures suffer from many diseases caused by bacteria, virus, fungus, protozoa and parasitic mites, In India, bees suffer mainly by bacterial disease, European foul brood (EFB). It is a destructive brood disease caused by *Melissococcus plutonius*, a gram-positive rod like bacterium. The clinical signs of the disease are an irregular brood pattern with swollen and twisted larvae having opaque and creamy white to pale yellow guts, emit vinegar-like odor. During the past ten years, beekeepers in North India have used the antibiotic terramycin to control EFB and sulfur, formic acid, apistan strips, methyl salicylate, and oxalic acid for control of eco-parasitic mite, *Varroa destructor* which makes punctures in the brood cells and sucks the haemolymph of adult bees. Due to the frequent use of these synthetic chemicals in beehives several beekeepers have lost their bee colonies. Considering the hazardous effects of chemicals used for bee disease management and to reduce the ill effects of chemicals on honey bees, I carried out research on the efficacy of **COW URINE**, an eco-friendly animal product, on honey bee disease management

ADVANTAGES Cow urine does not contaminate beehive products.

- 1) Cow urine gives rapid and cent -per cent recovery in bacterial infection and mite infestation within 8–10 days of spraying with promotion in brood growth.
- 2) The worker bees started working more efficiently by throwing out unhealthy larvae from the infected cells and cleaning the brood area. It enhances the cleaning (grooming) activities of worker bees.
- 3) The egg laying tendency of queen bee increases and the queen bee lays eggs uniformly and perfectly in the cells.
- 4) No any adverse effects are observed on the healthy brood (eggs, larvae, pupae), newly hatched eggs, egg laying capacity of queen bee and worker bee activities.
- 5) Due to regular spraying of cow urine in the colonies at 15-days intervals, recurrence of disease was also not observed.
- 6) Cow urine also give some additional positive effects by protecting the bee colonies from robbing, wasp and ant attack during off season.
- 7) A marked reduction in the stinging capacity of worker bees is also observed after spraying cow urine.
- 8) Cow urine surpasses all adverse effects on honeybees which are caused by hazardous chemicals.
- 9) Cow urine therapy is adopted by several beekeepers throughout India and abroad for large quantities of quality honey production .
- 10) **Marketing of quality honey is started in 2014.** DSL Pvt. Ltd,a manufacturer of Ayurvedic and Homeopathic medicines in Lucknow, Uttar Pradesh is purchasing honey on higher prices from the beekeepers following Cow urine therapy in beekeeping.
- 11)The honey quality testing reports based issued by an **International Drug and Food Testing Laboratory at Bremen, Germany** clearly proves the purity of honey samples collected from Cow urine treated bee colonies.
- 12)The therapy proves that **Cow urine** is **PANACEA** for all bee ailments and **SANJIVANI** for honey bees.
- 13)Cow urine can serve as a suitable alternative to conventional chemicals as it is quite eco-friendly, readily available, almost free of cost to beekeepers with no residual problems in hive products.