OLD BEEMAN INVENTIONS SERIES Part I
– Introduction & Silver Bullet

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Many years ago, in 1980, I decided to make my 4 acre property into a farm, and since it was a bunch of rocks, a good friend of mine suggested I get bees. As always, my friend knew another friend who was just selling a 100-hive outfit.

Thus, I became a beeman. When I started I had a mentor, Leo Fuhr, who was an old granddaddy of all beekeepers in the Okanagan and gave his time and help freely to any young or old novice beekeeper.
My previous knowledge was simply that the queen is called "mother" in my native Czech language and that the best honey I had ever eaten had a 50% content of black ants. Looking back on such a start, I did pretty well running 500 hives for 28 years.

Working with bees became my passion and I surprisingly used many of my engineering abilities in my beekeeping inventions.
Now, being old, it is time I repay Leo's help in the early years and share my inventions with you.

This series will talk about:

- Round bee yards and cranes that save your back.
- Feeder nuk divider and comb honey producer.
- Why and how to scale hives for successful wintering.
- Reusable winter packs for 8-12 colonies.
- Pollination Experience: How to work with growers.
- Pollination mechanization container lift system.
- Better frame, better nails, better smoke.
- How to keep better stock without inbreeding.

I will start with the best invention:

- September 2007 is the 12th year anniversary of the formic acid treatment method called MiteGone.

In September 1995 the first 1000 pads were used in the Okanagan valley by 5 beekeepers who cut and wrapped them by hand and used them in hives. Twelve years of experience showed us that we can simplify the method, reduce costs, and achieve good results with many benefits and no bad effects.

The most important experience is timing.

Regardless of what method, pesticide, or homemade potion you use all treatments in late September or October are too late! The damage to winter bees is already done and the colony may collapse.

In temperate climates of USA, Canada, Europe, and the Southern Hemisphere, treat the average hive twice a year with 65% formic acid and the simple MiteGone Method.

- Costs only $ 3-5 per year per hive
- No Resistance or Contamination
- No Queen or Brood Losses
- Not Weather Dependent
- Reduces Nosema, chalkbrood
- Repels SM.B. from hives

The MiteGone™ Treatment is Astonishingly Simple!
You buy the acid locally, buy the pads by the box directly from MiteGone or associates, cut the pads and soak them in acid. After soaking, hang the evaporator pads vertically on the outside of the outermost comb, as shown in the photo. Then put the combs back into the box.

Do Not Unwrap the Pads! Pin 3 soaked half-pads to the comb and put it in the hive in late August. Leave the pads in the hive for 40 days or until April. Refill or put 2 new pads into the hive in early April. Throw out the pads in late May.

Benefits & Side Effects: Following this method will get rid of Varroa and Tracheal mites carrying viruses, reduce Nosema and Chalkbrood, as well as the Lesser wax Moth. It will also help to increase the effectivity of screen bottom boards and will repel and deter the small hive beetle from the hives. Makes Surviving mites infertile and 80% will not reproduce.

Since 2000, MiteGone has been available and tested worldwide. Use and experiences in Canada, USA, Europe, Argentina, Chile, and New Zealand have showed that:

The MiteGone Product and Method:

1. **Is one item that is inexpensive, simple, and easy to use in many ways.** Available as a dry or pre-soaked pad.

2. **Is not weather dependant, but adjustable to internal humidity or local conditions.** The product works as long as the bees do not cluster. The bees maintain steady internal temperature, humidity, thus maintaining the evaporation rate in the bee hive.

3. **Eliminates blast method overdose symptoms, queen losses, drone infertility, brood and hive mortality.** MiteGone uses the *continuous low dose release method* which works on the principle of evaporating a miniscule but steady flow of acid fumes through the hive and finally contained at the bottom board. This forces bees to ventilate through this pool of acid and deliver a low concentration of acid fumes to the brood chamber, knocking the mites off and killing them in the pool of heavy acid's fumes concentration on the bottom board. These methods do not cause overdose symptoms and are not weather dependent.

4. **Fits into the existing bee space** between the frame and wall in the hive without any additional box, rim, or equipment. Heat and humidity is maintained only between frames.

5. **Allows for variable dosage to treat colonies of different sizes** including nukes by a simple cutting of the dispenser, thus varying the size and evaporating surface of the dispenser to allow a different dosage.

DO NOT REMOVE WRAP FROM PADS

6. **Contains enough acid to allow for 21 or more days of treatment** to treat low, medium, and high infestation levels, along with other uses of pads.

7. **Eliminates measuring acid into a dispenser.** The product soaks and holds the exact amount of acid automatically.

8. **Contains acid without dripping and evaporates acid at a constant rate** on the principles of capillary tube and gravity.

9. **Is a one-visit treatment** that does not require any specific time for removal or disposal. Remove it after 40 days, or when pads are dry the next time you work the

hive.

10. **Is reusable/disposable** for the commercial operator but allows for re-use by the penny-pincher without transferring diseases. Re-soaking in formic acid sterilizes the pads.

The MiteGone website (www.mitegone.com) was revised to reflect all of these changes. A lot of wisdom, testing, and scientific evidence including a field manual is available for free.

So where is the problem? Is it the regulations? While any beekeeper can use and apply formic acid anyway, he wants to his own hives in most jurisdictions.
Selling prefilled pads is subject to registration.
Can the beekeeping community pursue research labs or government or do the registration itself or find a business to do it?

The technology exists, is tested, and works.

I hope someone picks up the torch as I am too old and just a beekeeper. I will spend the rest of my life playing with a few bees to keep research going and writing about a few more inventions.

Have a honey day;

Bill Ruzicka

The writer is a professional engineer who, in 1980, became a bee breeder and inventor of many technical innovations. He holds the patent for the discovery of a biological Varroa mite treatment with fungus Hirsuttela Thompsonia which was passed over to USDA labs hopefully available in the future. Until then use his other patent: MiteGone formic acid treatment on www.mitegone.com.
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