

## Nimrod Israely

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**גשלה:** 14:37 2018 אוקטובר 26 יום שישי  
**אל:** Nimrod  
**נושא:** Does Pest Control Success Has To do With Where You Live?

Dear Nimrod,

**Does a farmer in Africa or Asia have the same chance to deliver high-quality pest control as a farmer in Europe or USA?**

The answer is very definitive and clear - **NO**.

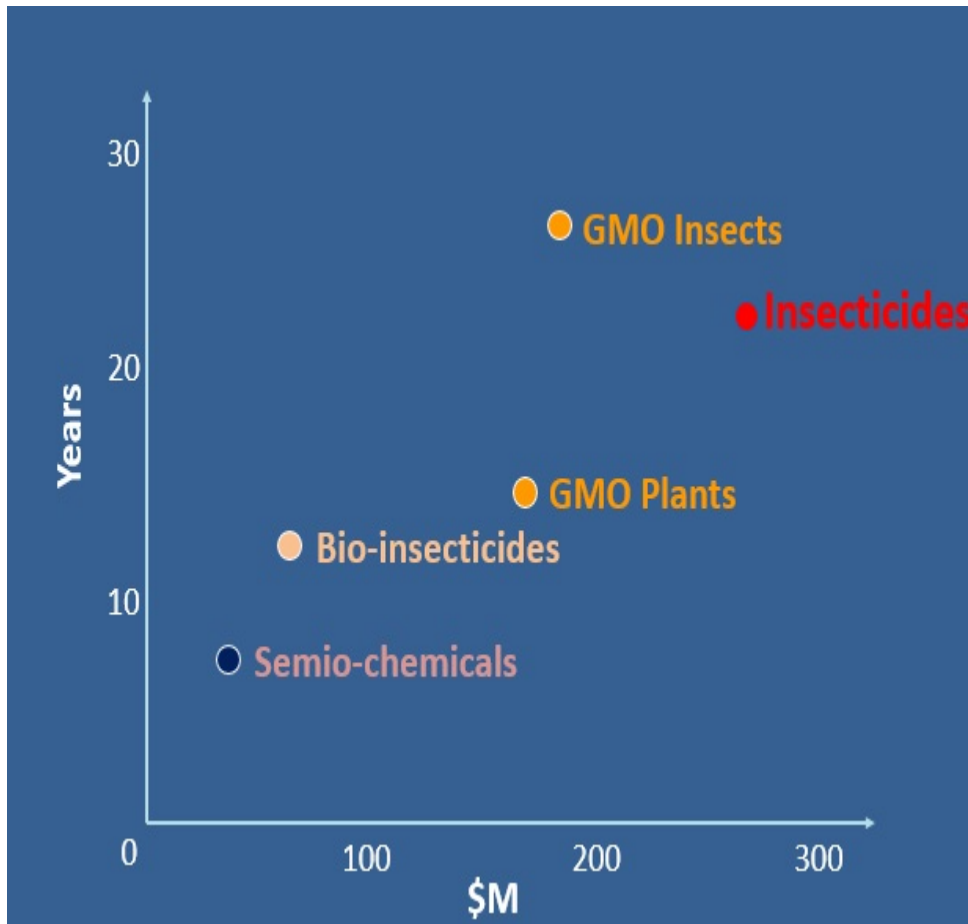
A farmer in a developing country will have to work 10 times harder to get **the same** results as a farmer in the West.

Here is why.

Pest control is mainly practiced today by chemical sprays. It was developed in the first half of the 20th Century in the **West** for the farmers of America and Europe.

Who developed it? BIG chemical companies.

For whom? Farmers who own BIG fields, with relatively high financial resources.



Cost (\$M) and time frame (years) for the development of a **new pest control solution**.

In most cases, product development does not succeed and hence there is no available solution.

Today most pest control is practiced using pesticide sprays, which takes nearly \$ 300 million and over 20 years to develop a single solution.

**Sensitivity to price.** Those farmers were growing to sell to the local and international markets. For that reason, they were ready to invest a lot to increase production and cut crop losses.

But this is not all.

**Environment and climate.** Most of the USA and Europe agriculture is in the temperate zone of climate.

Meaning the winter is cold and wet and the summer is hot and dry.

Now, dry weather is perfect for spraying. At the same time, rains (typical to the fruiting season in the tropics) wash off the chemicals and therefore require a frequent application, which makes it much less effective or even not effective at all.

**Infrastructure.** Sprays require access to sufficient high-quality water. The good infrastructure in the USA and Europe makes it easy and affordable to use water for sprays.

**Access to technology.** Most farmers in developed countries have access to machinery to apply sprays. Most farmers in developed countries have no proper equipment to apply sprays or for protection and safety measures from poisonous chemical sprays.

**Tree pruning.** It is custom not to prune fruit trees in the tropics. So trees are extremely high and the ability to apply sprays is nearly zero. In contrast, in temperate zone trees grow slower, and pruning is custom. So overall tree height is much shorter and more suitable for spraying.

**Health.** One should keep in mind that in the Tropics, often, families live under the trees, within the orchard. Spraying the orchard/field meaning spraying the resident of that orchard, and therefore directly affecting their health. In the West people live in proximity to agriculture areas, but not within.

**Proximity to the market.** Western companies sale (first) to Western farmers that are eager to buy, and pay almost any price. So they develop chemical sprays to control the main pest species in the northern hemisphere.

**Industry ability.** The development of each chemical spray requires an investment of hundreds of millions \$\$\$ and 10 to 30 years.

That requires a very strong and committed organization. For many years such organizations existed only in the West.

**Political stability.** A successful pest control country strategy requires a long-term vision combined with the political stability required to provide the effective ability to execute it. Developed countries excel in that part while developing countries sometimes struggle just to have any kind of governance.



**Economic unit.** Most of the farmer in tropical developing countries are smallholders, often has less than 1 hectare. While in the West commercial farmers may own 10's and even 100's of hectares.

**Target pests.** Simply not the same. Pests in the Tropical zone are often different than the ones in the Temperate zone. That means that different active ingredients are required.

**Species.** It is speculated that several million insect species live in the Tropics and in the Temperate zone. It is also speculated that over 90% of those species are in the Tropics. That is 10 times more than in the Temperate zone.

**Population growth potential.** Insects are sensitive to change in temperatures. Under favorable weather conditions, insects will develop faster and will have more progeny. For example, the Mediterranean fruit fly will complete a full life cycle (generation) within 25 days under the Israeli summer conditions, while it will take 60 to 120 days under the Israeli mild winter conditions. When each female can lay 300 to 800 eggs a difference between 3 to 12 generations a year is critical.

It is practically expressed when the farmers of West Africa need to control a population of hundreds of fruit flies per day (in monitoring traps), the farmers of North Africa will need to control a fruit fly population one-tenth of it, and the farmers of Europe will need to control one-hundredth of that population.

So you see, the farmers of Africa, Asia, and Latin America stand no chance to compete with their fellows in the Northern hemisphere. They are simply using the **wrong tools** and the wrong **set of mind** to treat their problems, which is dramatically different than those of in the Temperate zone (part of the EU and the USA).

For that reason, results are so poor. It will not improve but will continue to deteriorate, unless we choose a different course of action.



Over 100 fruit flies species are considered as 'economically important'. Most of those species are originated in the Tropics. Most of those species are not well controlled, meaning crop infestation is over 10%. Farmers all

over the world struggle to achieve infestation of less than 3% for high-quality local markets and less than 1% for export markets (which also requires post-harvest treatment).

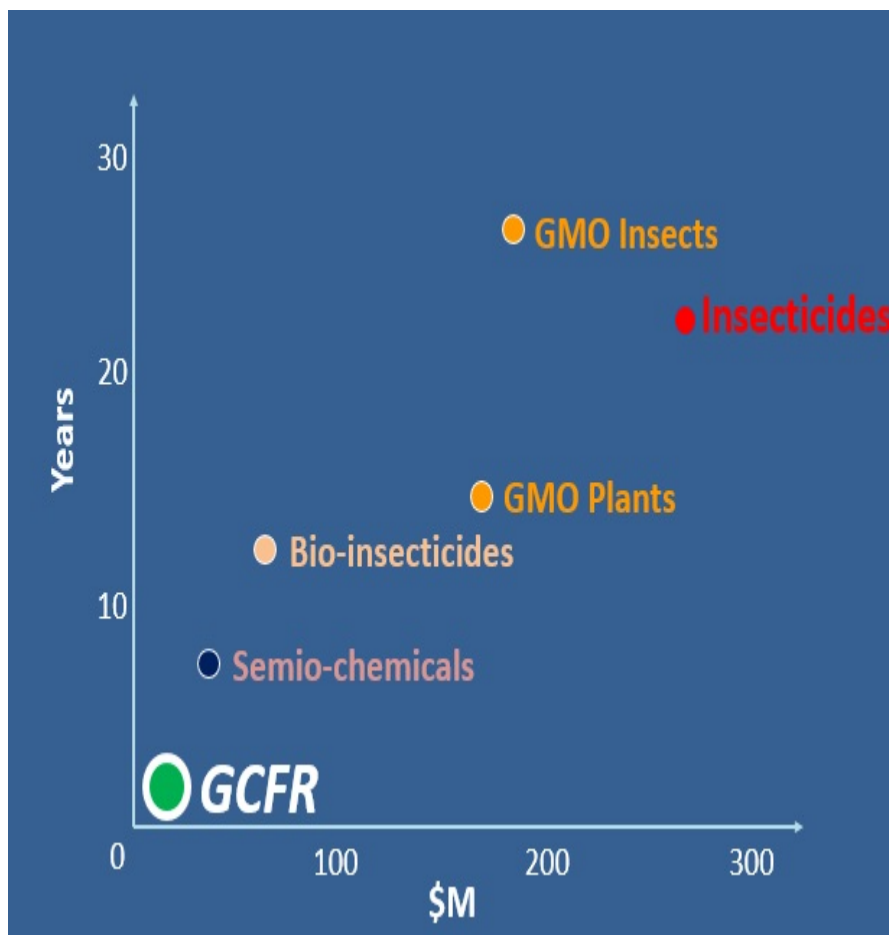
What can we conclude from all that?

**That while chemical sprays may be applicable and effective for Western farmers (even if not desirable), it is not suitable for most countries of Africa, Asia, and Latin America.**

So what is the solution?

Use alternative solutions that are not sprayed. For example, **FreeDome**, Biofeed's solution for fruit fly control is based on GCFR patented technology. It uses smells, not sprays, as the mean to control fruit flies.

GCFR technology is not limited to 1 or 2 species of fruit flies. It is applicable to any fruit fly species, and.... we expect it can be used as well for other flying pests.

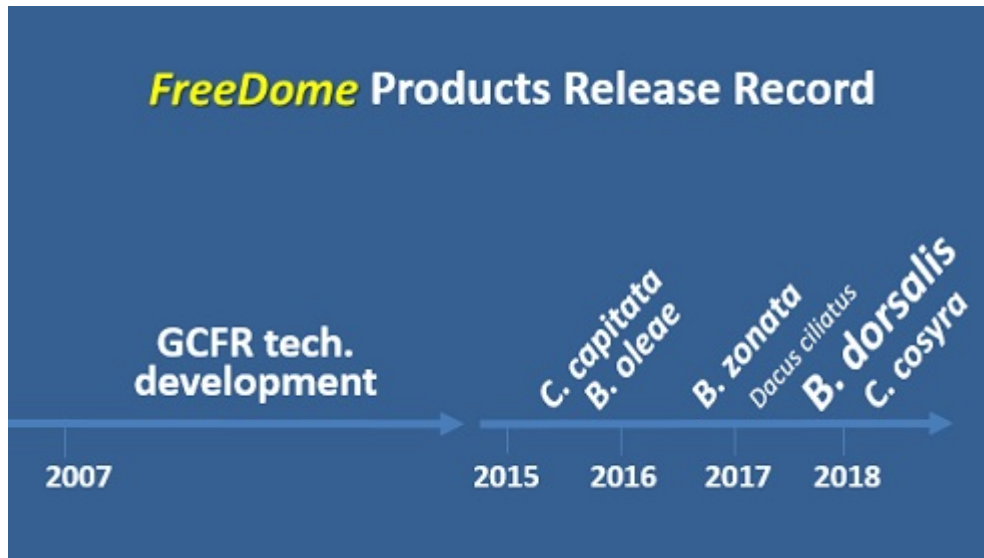


What we already know for sure is that GCFR technology enables extremely fast and low-cost development of **new** solutions for current major fruit fly pests.

Three years ago Biofeed completed the development of the **GCFR platform** for fruit flies, along with developing an **algorithm** for fast-development of new products.

The result is a burst of product development. First, we improved our 'old generation' solutions for *Ceratitis capitata* and *Bactrocera oleae*.

Then we completed the development of highly effective solutions for 3 most important fruit fly pests of Africa and Asia; *Bactrocera dorsalis*, *Bactrocera zonata* and *Ceratitis cosyra*, for which Biofeed is the sole company with a female attractant.



Finally, we managed to create a unique formula that is able to simultaneously provide an effective control for several species.

In the past year, we completed the development of 'Double Trouble' for; (a) *C. capitata* + *B. zonata*, (b) *B. dorsalis* + *B. zonata*, and (c) *B. dorsalis* + *C. cosyra*.

In one case we were able to provide a 'Triple Evil' formula for; *B. dorsalis* + *C. cosyra* + *C. capitata*.

**FreeDome** solution is proved effective without sprays, even where there are summer rains, trees are high, neighbors do not treat well their farms, etc.

No need for water to spray, harmless to the farmer and to the environment, does not affect the human residents of the orchards, once a season application and fast product development.

GREEN, EFFECTIVE and suited for ALL FARMERS, this is how I see pest control.

**Change is a decision.**

For more updates and information join me on [LinkedIn](#) / [YouTube](#) / [Facebook](#)!

Regards,



Nimrod

## **Better fruit... Better future... Biofeed...**

P.S. I am happy to share with you that 2019 is **full**. We now complete the last agreements for the coming season with the ones already contacted us from India and Africa. If you move fast we may be able to squeeze in 1 or 2 more on the base of first in first treated.

P.P.S. Take a look and **vote** by *Like* and *Share* to our new product development proposal for GRAND CHALLENGES ISRAEL 2018 [LinkedIn](#) [YouTube](#) and [Facebook](#).

P.P.P.S. November I keep for a scheduled trip, and for getting the team ready for the coming season, including high-level strategic discussions.

P.P.P.P.S. The season in Israel is almost over, and the results are absolutely fabulous. Israel is our large-scale beta-site, and here we must give excellent results (all Export Quality) to hundreds of farmers growing 30 different crops and hundreds of varieties. So you can imagine how important and how significant it is for us when we finish another season with great results and happy farmers.

It is thanks to your interest that I write this e-mails. Share this mail with friends or add them by [Pressing Here](#).

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