



## THE MYTH OF " *TECHNOLOGY TRANSFER* "

*"Improvement is a life-long mission one can't do alone."*

Everybody knows that to increase small-hold farmers' income and livelihood, we must improve their farming abilities.

The critical question is; how do we do it?

Which methods will do it better; providing farmers with subsidies and loans to buy technologies, giving them technologies (for no cost), turn-key projects, Centers of Excellence, or Technology Transfer?

Or could it be something completely different!?

Technology Transfer is the new keyword in the hope and promises to turn poor farmers into prosperous ones.

Hence, I use the "Technology Transfer" model to present the downsides of the "tech attitude" toward improving farmers' prosperity.

I confront this with over 50 years of experience in how top-tier farmers got to where they are now and keep improving.

We all agree that to create a better future; we must change!

If we agree that small-hold farmers' present is not what we would like it to be (I think there is a broad agreement on this), then we must our thinking and support models.

This column is not about criticizing those hard workers with good intentions. This column suggests an alternative model/attitude to how we can reach the same goals only faster and higher success rate.

## **SMALL-HOLD FARMERS' AND TECHNOLOGY TRANSFORM**

There are many ways to transfer technologies to small hold farmers; here is one scenario -

**A)** A contract between a government or organization and the company providing the *Technology Transfer* is drafted and signed.

**B)** The company executes the *Technology Transfer* contract program, e.g., using tractors and sprayers, that is a variation of the following:

- \* Holding classes for operating and maintaining the tractors and the sprayers.
- \* Practicing the operation and maintenance of tractors and sprayers.
- \* Follow up on farmers and provide feedback as they apply pesticides in their fields.

**C)** The contract ends several weeks/months later, and the *Technology Transfer* task is announced as "Completed."

From this point on, the farmers continue spraying, and the technical team (proud and satisfied) returns to its home base. Farmers are happier now and grateful as they know much more than before.

P.S.

Indeed, there are better programs than the above. Still, the small-hold farmers I have met told me stories of handing them the Technology (often irrigation and chemicals) without any (i.e., ZERO!!) support.

## HOW I BECAME A FARMER

This is a short description of how I learned farming, including crop protection, which requires driving a tractor and spraying.

During my elementary and high school years, I worked in the Kibbutz orchards (mainly) and in the dairy farm, chicken coop, and field crops.

I began driving tractors at the age of 10 (yes, I know it is against the law, but that is how it was those days), and at 16, I received my driving license.

At 18, I volunteer to work in the agriculture sector of another Kibbutz.

At 19, when recruited to the army, I already had accumulated over 5,000 hours of tractor driving, including practicing various types of spraying. I was still regarded as “a beginner.”

At age 23, after military service, I was appointed as the orchards’ crop protection officer.

To become a professional, I received an intensive apprenticeship, which relaxed after the first year but never ended. A partial list includes:

- \*\* Two months of daily study, with my predecessors, on mechanization and pests’ ecology, phenology, biology, etc.
- \*\* A week-long course for operating sprayers and applying pesticides.
- \*\* Weekly pest monitoring with an experienced worker from our team.
- \*\* Weekly pest monitoring with two entomologists from the Ministry of Agriculture.
- \*\* Three to four days of self-pest monitoring per week.
- \*\* **Constant** accompaniment by my father and other team members who overlooked my performance and advised me.
- \*\* Running field trials with and for agrochemical companies.
- \*\* A periodic calibration of sprayers with an expert from the Ministry of Agriculture.
- \*\* Seminars, courses, conferences, educational tours with other farmers, and more.

This long list is not unique to crop protection but is similar when you learn irrigation or any other profession in the Israeli agro sector.

**Professional farmers continuously learn, practice, and measure themselves to improve.**

To this day, although I have 14 years of academic studies and a Ph.D. in agriculture (i.e., ecological entomology), I consider myself a student and keep learning.

To be a good farmer or help farmers improve, we must see learning as a continuous task.

**QUESTION:** Can you point to a specific time, stage, place, or event where I received all the technology and know-how needed and became an excellent farmer?

You probably can't.

What you see instead is **a process** of a young man who, while growing, continuously improves himself by studying, practicing, and having many interactions with other people.

For sure, long years of working alongside my father and other older and more experienced staff members have had a significant impact on my current professional level. Still, I can't point to the event that turned me into a good farmer.

This is not unique to agriculture. Can you point to the event (time and place) when you became a good driver, lover/spouse, parent, professional/expert in your field, etc.?

Did you ever heard someone saying, *"I am already driving for 12 days; all I need is 28 more days to become an excellent driver, and then I don't need to learn and practice driving anymore."* Or, *"I am already a parent for one year; I just need one more year to be certified as A Great Parent."*

Becoming good at something and then improving is a process, not an event!

Suppose we like to strengthen farmers' farming abilities so that they will improve their livelihood.

In that case – **we must stop using business/support models based on events, i.e., *Technology Transfer*, and shift to models based on life-long continuous improvement processes.**

Do you think a transformation process is complex and costly?

Keep failing, and having hundreds of millions of poor small-hold farmers appears more complex and costly.

***“Insanity is doing the same thing over and over and expecting different results.”***  
**A. Einstein**

Improving farmers’ livelihood is **a process**, not an event, loosely related to Technology Transfer.

## **KILL THE MYTH**

*“Technology Transfer”* is an attractive business/support concept that makes us think that turning poor farmers into prosperous ones is simple, short, measurable, and straightforward.

According to the Technology Transfer model, all we need is (a) a promising technology, (b) a farmer to receive and “absorb” it, and ... then declare that the job is done and completed.

Furthermore, according to this concept, if we ensure a good “transfer” and “reception,” then from this point on, farmers can do well by themselves!

We are happy because if farmers do not need the support of others, they save unnecessary expenses.

Unfortunately, we over-focus on Technology while technology is one element of an entire PROCESS of improvement.

The successful Israeli agricultural model is based on three pillars, where Technology is only one and not necessarily the most critical element;

**(a) Ecosystem,**

**(b) Business model, and**

**(c) Technologies & Services.**

Think of it, Israeli agriculture was thriving decades before the age of technology entered our lives like a storm.

How did the Israeli farmers do this? I looked at my family history and never saw Technology or *Technology Transfer* as a critical change point.

The solution is to develop models that:

**Provide farmers with long-term diversified professional support.**

Those models should also ensure that agrotech companies enjoy business prosperity by working harmoniously with small-hold farmers.

For long-term prosperity, agrotech companies and farmers should share common goals based on shared business risks and opportunities.

Shifting from poverty to prosperity is a process, so let's encourage multi-year, continuous cooperation based on dedicated, appropriate business models.

It is time we "risk" giving up failed business and support models in exchange for novel ones that enable all value chain partners' success.

## TAKEAWAYS

- **IMPROVING INCOME** results from better professional improvement.
- **PROFESSIONAL IMPROVEMENT** is a lifelong task that doesn't necessarily relate to technology.
- **IMPROVING THE LIVELIHOOD** of small-hold farmers requires dedicated models incorporating long-term continuous processes.

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*\*\*\* Mental and Economic Freedom Are Interconnected \*\*\**

See you soon,

Nimrod



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**P.S.**

If you missed it, here is a link to last week's blog, "[\*The Risks and Consequences of "Excess Protection" For Smallholders.\*](#)"

Link to [recent columns.](#)

**P.P.S.**

[Start-Up Nation Central welcomes delegation of UN ambassadors for Israeli innovation](#)  
(The Jerusalem Post)

**P.P.P.S.**

[The IBMA](#) conference provides the stage to share your experience with agriculture business models and learn from others.

**P.P.P.P.S.**

[Dream Valley](#) is a field-proven disruptive business model based on the successful Israeli model. Contact me if you view yourself as a potential investor, business partner, or client. [Email](#), +972-542523425 (WhatsApp/Text)

**P.P.P.P.P.S.**

Please look at the video series "[The Agricultural Gap.](#)" I explain the historical roots of the agricultural gap between African and Western countries with short videos.

I see this video series as "uncompleted," as I am waiting to gain more confidence before completing the chapters with The Solution, as I perceive it.

If you like it, remember to **share** it with those who need to see it and **Subscribe**.

***Change Begins With A Decision  
That The Existing Reality Is A Choice  
And Not A Decree of Fate***