



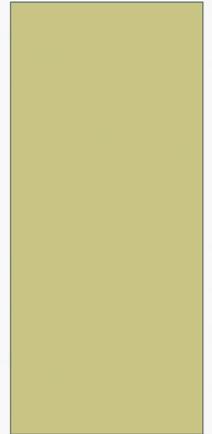
Bee O Sphere Technologies is a company providing consultation within the agriculture sector in secondary production processes: developing **“Field To Fork”** value chains within the Agriculture Sector.

P R E M I E R ' S A W A R D F O R
A G R I - F O O D I N N O V A T I O N E X C E L L E N C E

Award Recipient



BEE-O-SPHERE TECHNOLOGIES





- **Received two Canadian research grants for advancing bee technology.**

- • Grant #1 Pollination system designed for machine harvested crops
- • Grant #2 Comb Honey collection system
- Field to Fork Eco engineering

- **Most recent product development**

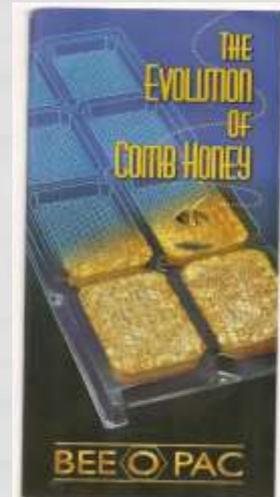
- • organic pest management trap for control of the African hive beetle and Varroa control
- • Pollen collection system designed for industrial applications.

- **Most recent Awards**

- • DuPont International, Silver Award; Category Science & Technology,
- • Two Awards American and Canadian Plastic Thermoforming Engineering Societies
- • Premiers Award for Agra-Food innovation Excellence

- **Articles**

- Jamaica Trade and invest
- Jamaican Gleaner
- Education
- McMaster University Environmental Geography; minor Industrial Economic
- Extension Studies, Beekeeping University Of Guelph
- Master Beekeeping Program ,Cornel University
- Nova Scotia Agriculture College





Bees and Beekeeping touch just about everything we eat, if not touched by pollination then by the sweetness of honey.

Bees touch on

- Crop pollination and uniformity
- Bee Hive commodities and the primary processing of such commodities
- Livestock bee breeding for domestic and export markets
- Apia-therapy

Beekeeping touches on

- Secondary processing of bee hive commodities leading to marketing.
- Value added; incorporating partners leading to market
- Fabrication of bee hive components, Research And Development
- Crafts: wax work; cosmetic;

Within any of the categories listed above you will find high end products and valuable services.

Every article written regarding bees from the start of time till today will tell you bees are the corner stone of agriculture, or as the angels of agriculture.



THE MAIN CENTRE OF BEE-KEEPING WAS LOWER EGYPT WITH ITS EXTENSIVE IRRIGATED LANDS FULL OF FLOWERING PLANTS, WHERE THE BEE WAS CHOSEN AS A SYMBOL FOR THE COUNTRY. SINCE EARLIEST TIMES ONE OF THE PHARAOHS' TITLES WAS *BEE KING*, AND THE GODS ALSO WERE ASSOCIATED WITH THE BEE. THE SANCTUARY IN WHICH OSIRIS WAS WORSHIPPED, WAS THE *HWT BJT*, THE MANSION OF THE BEE

Assumptions

- Agro business, Agriculture and Ecoagriculture are three different approaches to farming.
- Three types of Agriculture, three different priorities, goals and financing.
- A farmer who becomes a business man is different from a business man becoming a farmer.
- A trained farmer is trained for sustainability and to respect the pillars of his existence.
- A business man is trained for the purpose of respecting the laws of business and commerce.

So when you have a chemist controlling agriculture you will have different priorities , goals and financing.



Shortly after its invention in 1939, DDT was promoted as a miracle pesticide all around the world.

50 Years of Agro chemical solutions

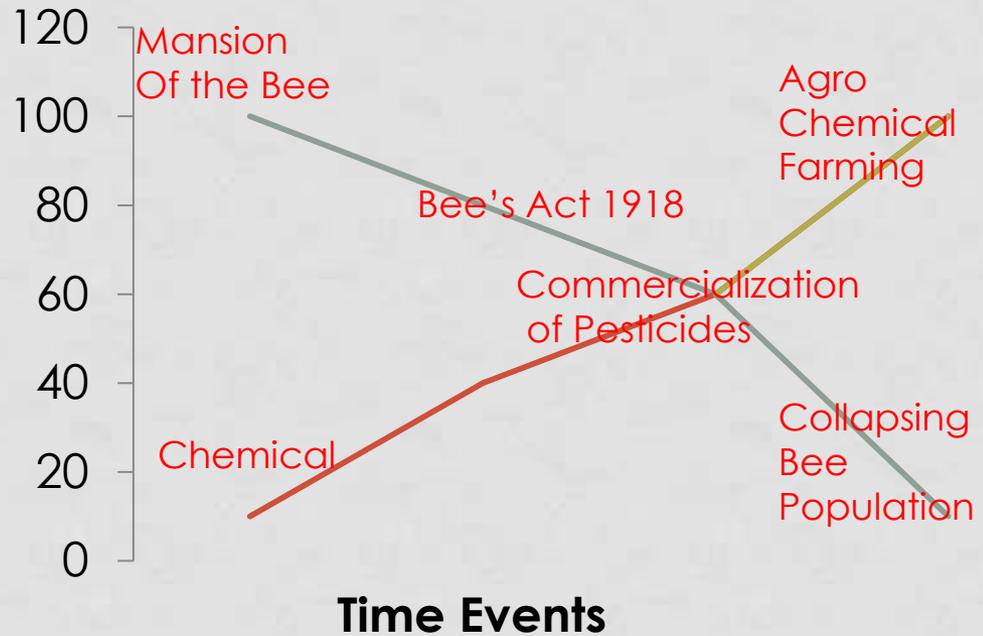


THE FOOD SHORTAGE IS NOT COMING AT YOU IN THE DIRECTION AGRO BUSINESS HAS EVERYONE LOOKING, BUT FROM A REAL DISCONNECTION TOWARDS THE ART OF AGRICULTURE.

- The constitutional Bee's Act was to carry forward this respect from history and protect the industry of beekeeping for the future,
- The bee's act was written into Jamaican constitutional law in 1918
- America put the law into effect in 1922 protecting honey bees from Varroa mites something beekeepers have now worked with for the last 20 plus years.
- 1939 was the first introduction of DDT in to the commercial and agriculture market. The designs of these chemical solution was the beginning of Agro Chemical Farming
- 50 years ago this chemical technology was regarded as too dangerous to be used

Pesticides likely 'main culprit' in bee deaths: Harvard study
Pesticides are directly responsible for a massive decline in the bee population in North America and Europe.

Respect over timed events



"THE RESULTS FROM THIS STUDY NOT ONLY REPLICATE FINDINGS FROM THE PREVIOUS STUDY ... BUT ALSO REINFORCE THE CONCLUSION THAT SUB LETHAL EXPOSURE TO NEONICOTINOIDS IS LIKELY THE MAIN CULPRIT FOR THE OCCURRENCE OF CCD," THE STUDY STATES.



Chemical
technology is
effective but not
productive

- Everything about this technology is offensive; it has pulled agriculture up hill, against a natural flow in a battle to control weeds, pest, funguses, food and farmers.
- The whole process of agro management is circular, fertilizers lead to herbicides, fungicides and pesticide use. This subject is well documented.
- What we get on the other end is high risk production, poor nutritional value, soil water and vegetative contamination with an array of very toxic chemicals. Also a well documented subject
- It has been 75 years since Agro took over farming, the weeds and pest are more resilient than ever before. Super bugs, Super weeds This also is a well documented subject
- .



How “Extreme Levels” of Roundup in Food Became the Industry Norm

March 24, 2014 Environment, Health, News 6 Comments

By Thomas Bøhn and Marek Cuhra

Agro companies will make you believe that farming will be tossed back into pre historic time.

- As consumer of food this reality is very close.
- the bees are gone, the trees stop producing and crop yields crash.
- What many people do not realize is fruit trees that are poorly pollinated, bearing few fruit will cause the tree to go dry, as like a dairy cow. Easier to kick start a dairy cow back into production than a mango tree.
- This will be the mark that starts a long term food shortage.
- This food shortage will be brought to you by the loss of bees not by reeling in the agro chemical technology.
- This food shortage is not coming at you in the direction agro business has everyone looking.

FUTURE WITH GMO FOOD LABELING

- **T**here is a movement within the EU and America today regarding disclosure labeling of GMO foods. It is not new news but this movement has made some great strides recently towards putting GMO labeling into US and EU law.
- **T**he grocery chains not to be blind-sided in the event of it becoming law, launched several studies. These first round studies have concluded and the findings have recently been published.
- **O**ne such study is consumer patterns and the disposition towards GMO food products. This study concluded, enough knowledge on the subject of GMO exist with the consumer.
- **W**ith GMO disclosure by label design, consumers did not purchase the product and did look for alternative.
- **F**resh produce and fruit became the first choice as an alternative.
- **T**he test used products that are known to the consumer, are known to be a GMO product and would be subjected immediately to new label laws.
- **T**he study goes on to predict that 60% of the *Ready Food* products will be affected immediately. The industry predicts that it will take three years for the conversion away from GMO and 5 years plus, depending on soil types to remove the residual active agents from the soil.

Agro chemical Technology is running agriculture into a brick wall head first. The longer Jamaica stays entangled with this technology the longer the market restrictions could become.

Art of Dumping



It made me think about what will happen during this 3 year conversion period.

- three assumption, supply chains are loaded globally with three years of GMO inventory, has a potential worth in millions of dollars and Agro doesn't have much time to move this inventory.
- Shutting down production only stops the feed into the supply chain but it doesn't help with what is being held as inventory .
- Agro business can pick many directions but the business concept of choice will be dumping.
- Dumping comes as incentives; promotions... seeds for the poor, research grants... long term studies, or a major reduction in the price of the product.
- The target markets which are attractive for dumping will be countries with limited label laws, clients who would appreciate input reductions, clients operating within weakly controlled agriculture policies.
- It makes you realize that Jamaica fits the target model for dumping.



Jamaica is a living botanical garden, truly as close to the Garden of Eden you could possibly find within this planet.

ECOAGRICULTURE – A NEW PARIDGM

Eco friendly agriculture describes landscapes that support both agricultural production and biodiversity conservation, working in harmony together to improve the livelihoods of rural communities.

[<http://en.wikipedia.org/wiki/Ecoagriculture>]

Elements in an ecoagriculture landscape:

While many rural communities have independently practiced ecoagriculture for thousands of years, over the past century many of these landscapes have given way to segregated land use patterns, with some areas employing intensive farming practices without regard to biodiversity impacts, and other areas fenced off completely for habitat or watershed protection. A new ecoagriculture movement is now gaining momentum to unite land managers and other stakeholders from diverse environments to find compatible ways to conserve biodiversity while also enhancing agricultural production.



My claim has always been that neonicotinoids is a vector source for CCD and each application is a vector point for CCD.

We have gone from respecting the bees, protecting them with constitutional rights, only to watch them die off because of a duality within agriculture policies and a poor response time to a crisis.

Beekeepers on the eastern side of the island have been experiencing production problems since 2010, four years have passed, one year since the petition presented to PCA. We beekeepers solved our pest problems only to find that beekeeping is still not better and the problems are mounting.

The beekeepers should not be in this position fighting for the bees existence.

- THE BEES ACT STATES THE FOLLOWING: Section 6
- Generally make provisions for the purpose of preventing the introduction and spread of disease or of any particular disease named in the order. [The inclusion of this page IS authorized by L.N. 480/1973]
- The biggest disappointment has been since the Bee petition, an industry wide petition posted by 99% of the island beekeepers, the PCA has continued to approve more agro chemicals and treated seeds.
- There appears to be no effort to mitigate the bee losses by putting a hold on these applications in the face of mounting evidence that screams prudence.
- Losses could be mitigated by limiting the usage and distributed as a controlled substance
- product should be removed from consumer and non-agriculture applications as they have no business with this technology. It is only in this market slot to increase revenue for the merchandize.
- A quick review of the capacity of farmers to handle the agro chemical products within safe working standards, meaning have these farmers invested into protective equipment and labeling facts.

This is all Up Hill Thinking Technology; it is expensive, hard to control, risky as the science is still immature and very hard for the beekeeping industry to survive within these conditions.

Conclusions; As Per Studies published.

Within the last 100 days

- Russia has banned all GMO products and supporting technology
- France has imposed stricter laws going beyond EU charter governing GMO and supporting technology.
- Mexico has out right banned the products, Mexico is very upset that their corn varieties are showing signs of BT And GMO technology
- Argentina releases documentation of health effects caused by Agro Chemical Products within the local farming communities.
- Study validates Roundup products are found in finished food products.
- Harvard validates studies to be true & accurate that Neonicotinoids are the single and only cause of CCD and is directly linked to the collapsing bee populations globally
- GMO labeling coming into law. The conclusion is that GMO tainted foods, 60% of shelf space will face market extinction immediately
- Same studies shows fruit and vegetable number one alternative.
- Same Study predict three years to purge entanglement from GMO tainted products. Five years to attain clean bill of health.

Bee Hive Economics

- Market Studies show fruit & vegetables first alternative within a consumer changing market.
- if agriculture plans to satisfy this coming market, you need bees
- bees need to be worked into active farm plans meeting pollination potentials from fruit and cash crops. increase yields naturally.
- Jamaica is blessed with fruit trees some rated as top quality varieties
- produces vegetables year round with ease.
- but too much farm land sits idle and constricts economic development, this is the real loss touching every pocket on this island
- Pro-active in responding to pending crises :as too being: re-active to an existing crises. Chemicals is a re active responses to an existing crises.

Dropping Agro chemical philosophies will not cause agriculture to collapse, but following these philosophies will collapse agriculture.

October 24, 2013

Mr. Michael Ramsay
Registrar of Pesticides
Pesticides Control Authority
2-4 King Street, 4th Floor
Oceana Complex
Kingston

Re: Neonicotinoid pesticides – Clothianidin and Thiamethoxam

Dear Mr. Ramsay,

Neonicotinoid pesticides Clothianidin and Thiamethoxam have been associated with bee Colony Collapse Disorder (CCD) around the world. There is now compelling evidence that these pesticides are a major factor in the drastic decline of honey bee populations and honey production in all countries where Neonicotinoids are used. While bees are particularly susceptible to these chemicals, they are also highly toxic to other insects, birds, bats and aquatic invertebrates.

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