

# **Cool Down The Earth**

## **Proposed Establishments of Carbon-Circulating Farm in Singapore**

### **INTRODUCTION**

#### ***The Reason for choosing "Organic" by Carbon-Circulating Agriculture***

Nowadays, we all concern about our health. For that reason, there's a lot of organic shop in all over the world. But, in contrast, there're quite few organic products bred in Singapore, even around 200 farming households/companies. So, Singaporeans organic market is highly depended on import, such as import vegetables from Australia, Thailand and so on. Therefore, the balance of supply and demand isn't equal, and the price is high.

In this respect, if high-quality organic vegetables can be produced and be supplied in Singapore, or Malaysia, the neighbor country, we can sell them by relatively high price, and can get more profit by exporting to other countries, such as Japan. And, due to current global warming and to prevent it, it's the best choice for us to adopt Carbon-Circulating Agriculture<sup>1</sup> method and set up the farm.

Hereafter, we want to see a general view of the organic vegetable market in Singapore, and after that, we show the management strategy.

#### ***Organic Vegetable Market in Malaysia and Singapore***

As mentioned above, Even he demand for organic products/vegetables is getting higher in Singapore, the number of the farmer and enterprise that practices organic farming is still very few, even in Malaysia too<sup>2</sup>. So. Such products/vegetables are imports from

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<sup>1</sup> As to Carbon-Circulating Agriculture, see <http://www.info-singapore.com>.

<sup>2</sup> In an organic enterprise in Malaysia, Some of them are owned by Japanese or any Japanese work in

foreign countries in common.

Moreover, it can be said that organic vegetables will have infiltrated further a lot in Singapore. For example, even "NTUC fair price", supermarket chain that selling the low price goods in common, have set up the organic vegetable corner at each of their supermarket. Singapore, the country imports almost all foods, is importing organic vegetables from other countries.

If consumers in Singapore want to buy organic vegetables, they can go organic shops or organic corner in any supermarket, and they can use home delivery service (\*2)<sup>3</sup> too. Home delivery service, even it costs higher and consumers can't choose vegetables they prefer as it's usually sold by the form of vegetables package, Japanese in Singapore usually like it, for the reason "it's very nice to be delivered", or " the quality is high".

### *Points at Issue*

Points at issue of organic vegetables in Singapore are as below:

- 1:The high price (especially, Singapore)
- 2:Unbridgeable gulf with consumer needs
- 3:Problem of quality assurance (especially, Malaysia)

1: It's because there are a lot of organic vegetables imported to Singapore, and they are grown in Australia, Thailand, and Japan, etc. so that the transportation cost by the airplane should be expensive.

2: Most of organic vegetables sold in the organic shop etc. are vegetables of local

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there, such as ABM Green Hill (Johor), Grascup (Pahang), and GK Organic Farm (Selangor), etc. However, all of them are operating without obtaining an international organic certification. Because of it, they cannot display the word "organic" it when it follows the standard of Japan (organic JAS).

<sup>3</sup> There are some home delivery service company, such as "Vernos" (\$85, 12~13 kind of vegetables with 1 fruit, from Thailand) and "Taiyo no Syokutaku" (Network of Asian Women, with fruit 1 vegetable, \$150,12~13 kind of vegetables with 1 fruit, from Japan) in Singapore, and "NATURE GARDEN" (Sell organic vegetable in HK, 6900 yen ≒\$100, 11~13 kind of vegetables with 10 eggs, from Japan) aims to deliver it to Singapore. There are ABM Green Hill (\$35,3kg) and GK Organic Farm (\$20,3kg) in Malaysia. However, they sell "local vegetables that grows in organic way", it's something different to sell "Japanese vegetables that grows in organic way".

kinds or vegetables of Western Europeans, such as the green peppers and broccolis and the carrots, Sasage (long bean), and Kankon (Water spinach), not the vegetables of Japanese which many people prefer.

3: it is each production farmer's problem. They don't get any organic certification because of its high cost and so on. There's no problem not to get any appropriate organic certification, if they sell it by small-scale face-to-face selling. But problems will be arise if we bring it to market, as we can not use the term "organic" on package. In Malaysia, some farmers get organic license named "**SOM**" (national program that certificate vegetables based on standard MS1529 organic international) from Ministry of Agriculture, and the others get the certification named **IOAS** from **IFOAM** (international organic farming movement), but anyway, the number of farmers who get any certification is quite a few.

## ***Business Maneuver***

Based on mentioned above, and we produce organic vegetables and sell it by the following ways.

### *1: Produces environs of Lim Chu Kang, Singapore*

There are about 4 million people in Singapore. And there are over 20,000 Japanese who submitted the residence report to a Japanese embassy. For the convenience of the market scale and the intra district transport are considered, we should have farm in Lim Chu Kang, and wholesale in supermarkets in Singapore, e.g. Meidi-ya, Cold Storage, Isetan or Carrfour.

### *2: A complete chemical free organic cultivation by using a Japanese style*

Other than healthy, the feature of organic vegetables is greatly delicious compared with vegetables in usual way of farming. If such vegetables are more familiar for consumers (vegetables that are taken daily) and are best eaten fresh, the difference of taste will be clearer. Japanese vegetables are more expensive than that of western/local vegetables at average.

Therefore, we produce Japanese vegetables, especially that can use for eat raw.

Import all seed from Japan, which haven't any patent. We should better use true-bred seeds (not F1 seed).

3:Targetting Japanese household in Singapore, and sell vegetables by delivery service

First of all, we'll give priority to the infiltration of service of delivering to Japanese household in Singapore by delivery service. As advertising procedure, we choose using website and local/Japanese media in Singapore effectively.

In that case, we should taken into consideration to sell vegetables to restaurants which the housewife often goes, and ask them to make a special menu such as "organic vegetable salad" by using our vegetables, and also ask to put our handbill on their restaurant.

Moreover, because various vegetables are necessary for the Chinese cuisine, Singaporean Chinese descents have strong potential to be our customers. Infiltration to the Singaporean Chinese society, we should join hands with any organic shop, make website by English/Chinese too, make tie-up advertising (The publicity, free of charge, is preferable) in Chinese-language newspapers English-Language newspapers.

4:To acquire any organic certification, and establish brand as "Japanese kind organic vegetables"

For the future development, the acquisition of any organic certification is necessary and indispensable. We should get it from international organic certificate organization, such as IFOAM, which can be recognized as organic JAS in Japan.

Because 1 to 2 year's production results are necessary for the acquisition of an organic certification, the production method is devised at first to match with the certification.

5:To produce Biofuel

Biofuel (agrofuel) is solid, liquid, or gas fuels derived from biomass, such as corns, sugarcanes and woods. It is considered a means of reducing greenhouse gas emissions as an alternative to fossil fuels, especially when it is derived from crops with less nitrogen demand.

EU will lead to a 10 percent reduction in greenhouse gas emissions from transport fuels between 2010 and 2020, and also raise the market share of biofuels in road

transport fuels 5.75% by 2010, and at least 10% by 2020. USA, Japan and other countries also have similar plan too. Following to such trends, the demand for biofuel is high, and will be higher.

By Carbon-Circulating Agriculture, we could grow up plants for biomass and produce biofuel. It could be our most profitable crop by global demand.

### 6: Emissions Trading

Emissions trading is an administrative approach to reduce greenhouse gas emissions and solve global warming, such as European Union Emission Trading Scheme (EU ETS). Governments set the limit or cap on the amount of greenhouse gas emissions to companies or other groups, that are issued emission permits and are required to hold an equivalent number of allowances or credits that represent the right to emit a specific amount.

The total amount of allowances and credits cannot exceed the cap, limiting total emissions to that level. The transfer of allowances is referred to as a trade. In effect, the buyer is paying a charge for polluting, while the seller is being rewarded for having reduced emissions by more than was needed.

There are two ways of emission trading, namely "cap & trade" and "baseline & credit". Along with "baseline & credit" way, Our Carbon-Circulating Agriculture would be developed as Joint Implementation (JI) or Clean Development Mechanism (CDM) of Kyoto Protocol, will be issued Certified Emission Reductions (emission reductions credits). The credits would be trade or use it for the expansion of the cap of related/invested company or business.

Thus, Carbon-Circulating Agriculture could be helped not only environment protection but also sustainable development of our society and industry.

## ***The Future View***

### 1:Export to Japan (after three to five years from production beginning)

The infiltration level of organic vegetables in Japan is besides higher than that of Singapore, is a very attractive market. We want to export any vegetables that can keep its freshness in long transportation, such as soybean, to the Japanese market. United States of America and Brazil, which make GMO soybean too, exports it to Japan. But, consumers in

Japan have strong anxiety to GMO.

If we can export the non-GMO soybean to Japan after acquiring organic JAS certification, it is possible to make bean curd in Japan and sell it as "Non-GMO Bean curd, using chemical free organic soybean".

2: Foray to food service industry (after five to ten years from production beginning)

By adopting franchise method, we establish restaurant chain that use organic vegetables made by our farm.