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REVIEW ARTICLE

AN OVERVIEW MALAYSIA AS A HUB OF PLANTING PROPHETIC FRUITS

Aimi Fadzirul Kamarubahrin*, Asmaddy Haris, Syadiyah Abdul Shukor, Siti Nurazira Mohd Daud, Nursilah Ahmad, Zurina Kefli @ Zulkefli, Nurul Aini Muhamed and Abu Hassan Makmun Abdul Qadir

Faculty of Economics and Muamalat, Universiti Sains Islam Malaysia, Bandar Baru Nilai, 71800 Nilai, Negeri Sembilan Darul Khusus.

*Corresponding Author E-mail: aimi_fadzirul4@yahoo.com

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ARTICLE DETAILS

ABSTRACT

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Only a small number of farmers involve in planting prophetic fruits such as dates palm, figs, pumpkin and watermelon in Malaysia. If look at Malaysia, Muslim is the majority population and practices Prophet Muhammad (*pbuh*) is a *sunnah* in order to gain benefit at the end of the day as a Muslim. There is a potential for Malaysian to plant and produce these prophetic fruits due to its availability in small scale. The main purpose of this study is to provide an overview of Malaysia as a hub of planting the prophetic fruits as well as known as *sunnah* consumption. Methodology is based on review of previous literatures and interview conducted. As recommendation and findings, there is huge potential for planting these prophetic fruits as shown in findings dates palm, figs, pumpkin and watermelon. Economic and religious information will lead to the success of planting these types of fruits. The involvement of government agencies and private sectors is essential in the promotion of planting prophetic fruits to farmers. This study contributes to the literature of planting several prophetic fruits which is available to cultivate, plant and harvest in Malaysia.

KEYWORDS

Planting prophetic fruits, Dates palm, Figs, Pumpkin, Watermelon, Review.

1. INTRODUCTION

Malaysia has a rich growth of agriculture cash crops which are mainly grown in the small-scale farming holdings ranging from one to ten acres. According to a study, despite of fast developing into an industrial country Malaysia are still basically an agricultural country [1]. It has 4.06 million hectares of agricultural land distributed throughout 13 states. Eighty percent of this land is cultivated with industrial crops such as oil palm, rubber, cocoa, coconut, pepper and rice. In 2016, agriculture remains an important sector of Malaysia economy, contributing at 8.1 per cent or RM89.5 billion to the Malaysian Gross Domestic Product (GDP) and providing employment for 16 percent of the population [2]. Malaysia is a net importer for fruit industry, contributing sector in the economy as it supplies fresh fruit to the population. The trade performance of fresh fruits, however has not improved much despite the various incentive programmes implemented by the Malaysian government through its Third National Agricultural Policy. Study showed fruits industry in Malaysia based on some production is only meets the domestic consumption [3]. In Malaysia, fruits are steadily becoming an important component of the agricultural production [4]. Moreover, Muslim in Malaysia are luckily in terms of diversity of fruit plant and harvest because the availability on the fruit that consumed by the Prophet Muhammad (*pbuh*) which called as prophetic fruit.

Prophetic fruits are referred to the fruit consumed by the Prophet Muhammad (*pbuh*) regularly and mentioned in the Quran about its benefit to the earth and human. Moreover, prophetic fruits such as dates, figs, pumpkin, watermelon and so on are types of fruit that consumed by the Prophet Muhammad (*pbuh*) high nutritious and benefit to the human body. Demand toward consumption of prophetic foods including fruit are increase due to increase of awareness about its health benefit. However, Malaysia struggling in import these types of fruit this due to only a small number of farmers have interest in planting these types of prophetic fruits. In addition, Malaysia has been burdened with hefty bills on the importation of food, worth about US\$3.5 billion each year. The current deficit in agriculture, especially food, is about US\$1.35 billion. Thus, the

Malaysian government is trying to encourage production in the fruit sector for export in order to balance the trade, especially in agriculture by 2020 among others the demand side offers good prospects for Malaysian agriculture [5]. Analyst forecast that food needs will rise at extraordinary rates due to rapid increase in population, rising level of nutrition as income levels will increase and changing in consumption [6]. According to Department of Statistics Malaysia, total imported of fruit in Malaysia for the year 2013 is around 2,149.74 million Ringgit Malaysia [7]. Thus, this study aims to provide an overview Malaysian as a hub to plant prophetic fruits. This study will provide economics data to present the current Malaysia productivity and findings from Quran and hadith based on these prophetic fruits which available planting and harvest in Malaysia. Moreover, this was in line with the government's policy to promote commodities which have high added values and good export potential. This paper begins with an introduction and literature review. The third section explains the methodology of the research. The fourth section explains the research findings. The final section concludes the study.

2. LITERATURE REVIEW

2.1 Fruit Plants

Based on a study, cultivated fruit plants represent an essential resource to improve human nutrition, health, and well-being [8]. Malaysian tropical fruits have many health benefits. Fruits in general are high in fibre which is necessary to improve digestion and prevent constipation and has no cholesterol. Malaysian tropical fruits contain a variety of micronutrients, vitamins, minerals, carotenoids, riboflavin, niacin and other phytochemicals. Some of these fruits are reputed to be able to prevent certain non-communicable diseases such as blood pressure, diabetes, lower cholesterol or even cancer. In another word, healthy diet of fruits since young can build a strong immune system and maintain a healthy body. Islam also suggest consuming good things as mentioned in Quran: "Eat from the good things which we have provided for you and be grateful to Allah"

[Quran: Al-Baqarah 2: 172]

Eight major fruits given more emphasised for domestic as well as for export markets are pineapple, papaya, watermelon, starfruit, banana, citrus, *mangosteen* and durian. In addition to these products, Malaysian farmers produce a number of fruits for the domestic market, including bananas, coconuts, durian, pineapples and others. Despite of Malaysian farmer produce a number of tropical fruits as mentioned, Malaysia survive and highly dependable on imported *sunnah* food or know as prophetic fruits. Among others prophetic fruits such as dates, figs, pumpkin, watermelon and others. This due to unavailability in mass productivity for local production to these types of fruits. However, due to research findings and scientific proven dates palm, figs, pumpkin and watermelon can be plant in Malaysia. Thus, this study aims to provide an overview Malaysian as a hub to plant prophetic fruits. Malaysian government is trying to encourage production in the fruit sector for export in order to balance the trade, especially in agriculture by 2020, among others the demand side offers good prospects for Malaysian agriculture.

3. METHODOLOGY

Methodology used by two technique which is first is interview with practitioners and expert. Meanwhile, second technique is through gathering the previous articles, Ph.D. and Master thesis, company report, web site and private blog. First technique which is through interview with the local farmers in Malaysia who are involve in this planting these types of *sunnah* fruit in Malaysia. According to several info gather from website and contact get from government agencies about availability of farmer involves in planting these types of *sunnah* fruit were find. Interviews sessions were conduct during mid of January 2018 up to end of April 2018. Interview session were conduct in two places in Malaysia which based on availability in planting this type of *sunnah* fruits such as in Kelantan were found farmer cultivate and planting dates palm. Meanwhile, in Negeri Sembilan were found farmer planting watermelon.

For the second technique which is adopts document and literature review methods in order to gather the data. For document reviews, a number of reports and statistics from the Department of Agriculture of Malaysia (DOA) and the Food and Agriculture Organization (FAO) especially on the demand and supply on pumpkin in Malaysia. This include such as imported, exported, harvested, production and even distribution channel price of pumpkin in Malaysia. Meanwhile, for literature reviews, a significant number of articles published in websites, journals, book chapters, theses and review manuscript were obtained using different search engines, namely: Google Scholar, Science Direct, EBSCO, and library search engines. The keywords included in the search were '*dates fruit, figs fruit, pumpkin and watermelon*' '*fruit planting in Malaysia; Dates Palm, Figs Planting, Pumpkin Farm and Watermelon Farm*' which had to appear in the title or abstract and somewhere within the text of the publication.

4. RESULTS

4.1 Dates Palm

Dates fruit (*Phoenix Dactylifera L.*) belongs to family *Arecaceae* (*syn. Palmaceae*), and the genus *Phoenix* contains 12 species. *Dactylifera* is the most important species in terms of commercial value and human food use. While the date palm tree is called "*nakhil*" the fruit is called "*tamr*" in Arabic. Dates fruit (*Phoenix Dactylifera L.*) is among the main top fruit crop of the Middle East [9]. Dates palm or known in as *Phoenix Dactylifera L.* is

a plant that growth in temperate climate region. This plant origin from Persian Gulf countries and has long been used for basic food by the people in the Middle East. In Malaysia, date palm production in Malaysia context is still extremely rare [10]. But, increased popularity of date palm tree amongst Muslim in Malaysia due to it can be plant in Malaysia climate.

Based on a study, dates cultivation was introduced into Malaysia in late 2010 [11]. Several privately-owned farms have been established in East-Coast (Terengganu and Kelantan) and the Northern Territory (Johor) of Malaysia [12]. However, the date farming sector in Malaysia is still in the primary stages and operated as fundamental industries. Currently, based on preliminary (observation) and secondary (search engine and previous literature) data findings, there are still not proven Malaysia have a commercial dates palm farm. Most of the farmers are still in the early stage, which is in the process of cultivation date palm seed.

In Malaysia, recognizing the potential of dates as commercial crops, the government initiate to introduce this plant as a new economy source for local farmers. The initial project was planted on an 8,000-square-meter land in Limbongan, Pasir Puteh, Kelantan. Seed of dates palm were taken from Thailand. Based on interview conducted with dates palm farmer: "*I am started plants date palm in 2010 at Kelantan. As started a total of 50 dates palm trees were plant and found have produced fruit*" (Dates Palm Farmer: Mr. Zain)

According to Mr. Zain, dates palm is reported to be successful cultivated in Thailand and it may be the result of plant breeding work and the adaptation of the ongoing agronomic practice in the country with a new variety of dates that fit with the hot and humid climate such as in Southeast Asia. However, increased popularity of date palm tree amongst Muslim in Malaysia due to it can be plant in Malaysia climate. Date palm can be grown in a wide range of soil types. According to research, deep sandy soils with a good moisture supply are best [13]. Good drainage and aeration are the main soil requirements for ideal production. Date palm tree will grow in heavier soils, but care must be taken not to waterlog these soils. It will grow in soils that are high in alkali and salt content, but growth and productivity will be affected. More sandy soils with their great drainage require more fertilization, as fertilizers are more easily leached out by irrigation.

They are many farmers and nursery start to cultivate date seed for commercial purpose without promising it can fruitful and sell it as a gift due to small size of the date tree. The price of date palm tree or seed bag is depending on the dates palm types, approximately from RM65 to RM100 [14]. From a marketing perspective, the key challenge for Malaysian date palm farmers is being able to supply dates palm production based on planting in Malaysia. Limited to none of commercial local production of dates had made Malaysia survive on imported this type of fruit. Malaysia is the major countries importing both fresh and dried dates from Pakistan and Middle East countries.

The annual dates palm imports to Malaysia are estimated at 19,000 to 20,000 thousand tons, and almost 75% is Iranian dates [15]. Meanwhile, Malaysia also had export 12,258 thousand tons of date palm from 2010 to 2013 [16,17]. Malaysia generally not produce local dates palm; however, Malaysia import and generate additional value for commercial benefits by considering the utilization of date industry by-products. Total import and export of Malaysia dates is shown in Table 1.

Table 1: Total Import and Export Dates.

Import and Export (Thousand tons)	2010	2011	2012	2013	Total
Import	17,980	16,236	20,394	19,421	74,031
Export	4,268	3,906	2,430	1,654	12,258

Source: DOS (2014); FAO (2015).

Dates, or its scientific name is *Phoenix Dactylifera*, is among the main top fruit crop of the Middle East. Today, large quantities of many dates varieties are commercially produced in countries such as Algeria, China, Egypt, Iran, Iraq, Pakistan, Saudi Arabia, Sudan and the United Arab Emirates [18]. Dates are rich in vitamins, minerals and fibre. It contains oil, calcium, sulphur, iron, potassium, phosphorus, manganese, copper and magnesium. Dates consumption can also provide relief from constipation, intestinal disorders, heart problems, anaemia, diarrhoea, abdominal cancer and many other conditions. It is also identified as having antioxidant and anti-mutagenic properties and reduces heart disease. The Food and Agriculture Organization (FAO) estimated the daily per capita supplies of dates are around 50g. A more recent study by a scholar

suggested that average daily consumption per capita is 114g. Thus, the Malaysian government is trying to encourage production in the dates palm due to its '*baraqah*' to earth and human as mentioned in Quran.

Date fruit or palm cultivation are encouraged in Quran and Prophet Muhammad (*pbuh*) due to its benefit for human and earth. The date palm is mentioned more than any other fruit-bearing plant in Quran. One of the verses is:

"*In the earth there are diverse regions side by side and gardens of grapes and cultivated fields, and date-palms sharing one root and others with individual roots, all watered with the same water. And, we make some things better to eat than others. There are signs in that for people who use their intellect*".

(Quran: Surah Ar-Ra'd 13:4)

Moreover, there is also a hadith regarding dates palm narrated by Ibnu Umar (RA) which is:

that it was the date palm, but I was the youngest among them (so I kept quiet). He added, "It is the date palm."

(Hadith No.411, Volume 3, Book 34, Sahih Bukhari)

Thus, increased popularity of date palm tree amongst farmers in Malaysia due to it can be plant in Malaysia climate is in line with the government's policy to promote commodities which have high added values and good export potential. In addition, this will decrease Malaysia dependency on imported in future and perhaps the county able to be a hub in producing dates in Southeast Asia.

4.2 Fig

Fig (*Ficus carrica L*) is the most common fruit worldwide and is traded internationally. Based on a study, dry figs are more common in Asia [19]. Common fig tree, originated in the Middle East, is one of the first plants that was cultivated by humans and is an important crop worldwide for dry and fresh consumption [20]. Most of the world's fig production occurs nowadays in the Mediterranean basin [21]. Figs have been an important part of the traditional Mediterranean diet with origins in the eastern Mediterranean region and southern Arabia [22,23]. Since early in the man

I was with the Prophet (PBUH) while he was eating spadix. He said, "From the trees there is a tree which resembles a faithful believer." I wanted to say history, fig fruit was appreciated as food and for its medicinal properties [24]. *Ficus carica L* is an amazing and ancient source of medicines and food. The fig (*Ficus carica*) was domesticated during the early period of human civilization. It originated from Asia Minor and spread throughout Mediterranean area of the world. Most of Malaysia current production is of dried figs; fresh production is limited by the high perishability of the fruit and the lack of techniques and facilities to allow sustainable distribution to local and global markets.

In Malaysia, commercial crops are being carried out with 16,000 fig trees are planted in the area of 10 hectares at the project site namely Indonesia, Malaysia and Thailand Growth Triangle (IMT-GT) which is located at Chuping, Perlis. In addition, fig fruit getting high demand among Asian countries. This made Perlis become as a larger producer for fig fruit especially in this Southeast Asia region. A fig fruit-planting project is jointly developed between the state government and a private company based in Penang Island. Through this, Perlis will become such Egypt, which is among the countries with largest producer of fig fruit in particular for the worldwide market. As shown in Table 2 is total import and export figs dried Malaysia.

Table 2: Total Import and Export Figs Dried.

Import and Export (Thousand tons)	2010	2011	2012	2013	Total
Import	180	209	222	252	863
Export	18	19	21	35	93

Source: FAO (2017).

Based on a study, figs have been used for human consumption for centuries, and recently their nutritive and pharmacological values have been investigated [25,26]. Fig is economically important because of its high nutrition and medicinal properties (anticancer, anti-diabetic, anti-inflammatory etc) [27]. Figs are predominantly rich in amino acids, vitamins, carotenoids, minerals, antioxidant polyphenols, sugars, and organic acids, which serve as a nourishing food and are used in industrial products [28,29]. However, fig fruits are considered to be free from sodium, fat, and cholesterol [30]. It is suggested that this species plays an important role in human health. It is possibly due to their phytochemical composition preventing serious health disorders including obesity, diabetes, cardiovascular diseases, neurodegenerative disorders and even certain types of cancer [31,32]. Figs are rich in phenolic compounds and contain antioxidants. They play key roles in the prevention of pathogenic processes associated with cancer, cardiovascular disease, diabetes and can enhance immune function [33]. In a study conducted on fig fruits antioxidant activity contributes to the concentration of polyphenols in fig fruits. Since secondary metabolites exist commonly in figs, several studies have been conducted on their health-promoting potential [34]. Fig fruit have been studied in recent years being part of the healthy diet. In Islam, fig fruit was mentioned several times due to its benefit to human. Fig fruit was mentioned in the Quran because of its nutritious. "By the fig and the olive"

(Quran: Surah At-Tin: 95:1)

Ibn al-Qayyim also said that figs are more nourishing than all other fruit, that they should be ripe and peeled before eating, and that the best type of fig is the white variety. He said that eating fresh figs can prevent the development of urotoxicity (toxic quality of urine) and can cleanse the kidney and bladder. Fresh figs are healthier and more wholesome than dried figs and can benefit the throat, chest and trachea. He mentioned that dried figs are beneficial for the nerves and that eating dried figs combined with almonds and walnuts on an empty stomach in the morning can be exceedingly beneficial in opening up the alimentary canal (a tube that runs through the body, from the mouth to the end of the large intestine). In addition, Prophet Muhammad (pbuh) was mentioned about figs as below: "If I say, indeed the fruit descends from heaven then I say this is the fruit (figs), the fruit of heaven is no doubt."

(Hadith Riwayat Abu Darba; Suyuti).

However, figs planting remains underutilized in Malaysia because

inadequate information about its feasibility. In addition, traditional fig plantations have low productivity and are often no longer profitable. Thus, planting figs in mass productivity have a potential to grow into one of the sources of economic growth since the fruit cost RM120 for a kilogram. Currently, there is no technical study on commercial figs plant in Malaysia. Figs tree potentially to be grown in Malaysia with further study by the researcher in this country.

4.3 Pumpkin

The pumpkin (*Cucurbita*) is a cultivar of a squash plant that is round, with smooth, slightly ribbed skin, and deep yellow to orange coloration. The thick shell contains the seeds and pulp. Pumpkins, like other squash, are thought to have originated in North America. The oldest evidence, pumpkin-related seeds dating between 7000 and 5500 BC, was found in Mexico. Then, pumpkin is cultivated to Argentina and Chile and has spread to Europe, Asia and Western America. Pumpkin is an annual vine or trailing plant and can be cultivated from sea level to high altitudes [35].

Physically, pumpkins in Malaysia are from the species of *Cucurbita moschata* and *Cucurbita moschata Duchesne* [36]. Locally, they are known as labu manis and labu loceng among the community. Labu manis is planted almost in every state in Malaysia. Meanwhile, labu loceng majorly came from Kedah [37]. They are varied in size and colour; the young fruit is green while the older is pale yellow. The flesh thickness is around three centimetres and they have sweetish taste with a very good market compared to other species due to its size with an average of 1.4 kg per piece. These physical features allow farmers and wholesalers to plan the production and marketing of the crops [38].

Malaysia produces pumpkin of its own, with considerably large areas of production comparable to its high global demand. In Malaysia, there are 138 hectares of pumpkin plants with production of 6,240 metric tons in 2014 worth RM 7.3 million [39]. The major pumpkin producing states in Malaysia are Johor, Terengganu, Kelantan and Kedah. According to a scholar, the area for pumpkin plantations in Malaysia was around 138 hectares, where pumpkin is abundantly planted in Kelantan (79.6 hectares), Terengganu (59.6 hectares) and Johor (93.5 hectares). A shown in Table 3 below is the total production of pumpkin in Malaysia for the year 2011 until 2015. Despite of producing, Malaysia also imported and exported pumpkin.

Table 3: Total Production (Tonnes) of Pumpkin in Malaysia for Year 2011 - 2015.

Item/Year	2011	2012	2013	2014	2015	Total
Pumpkin (Tonnes)	21,534.40	17,382.50	111,144.30	44,525.70	25,651.70	22,023,860.00

Source: DOA (2016).

Local production of pumpkin is for trade in international and domestic market purposes. Thus, as shown in Table 4 below is the total import and export for Malaysia pumpkin for the year 2013. Total exported is more

compare than imported, this due to surplus on local production of pumpkin. Besides that, pumpkin is believed to have health benefits and nutritious content

Table 4: Total Import and Export Pumpkin.

Pumpkin (Thousand tons)	2013 (Year)
Import	2502
Export	4411

Source: FAO (2017).

Pumpkin has been considered as beneficial to health because it contains various biologically active components such as polysaccharides, para-amino benzoic acid, fixed oils, sterols, proteins and peptides. The fruits are a good source of carotenoids and gamma-aminobutyric acid. Pumpkin seeds are valued for their high protein content and useful amounts of the essential fatty acid, linoleic acid. Besides that, pumpkin also provide health benefits such as sharp eyesight, aid weight loss, reducing cholesterol, reducing cancer risk, protect the skin and boost immune system [40]. Based on a study, pumpkin is rich in carotene, vitamins, minerals, dietary fibre, pectin and several compounds beneficial for human health [41].

According to research, pumpkins are annual or perennial climbing or trailing herbs, comprising about 25 species, some of which are economically important, such as *Cucurbita maxima*, *Cucurbita moschata* and *Cucurbita pepo* [42]. Pumpkins are good sources of many important nutrients, including potassium, vitamin C, folate, fibre, and numerous phytochemicals as shown in Table 2 [43]. Furthermore, pumpkins contain polysaccharides, proteins and peptides, para-amino benzoic acid, phenolic compounds, terpenoids and sterols [44]. Pumpkin is medically proven as a source of lowering the risk of prostate cancer, protecting against swelling of joints, lessening of wrinkles on face, stimulating the functioning of kidneys and others. Moreover, pumpkin is also listed as sunnah food, it was also the top most desired food consume regularly by Prophet Muhammad (*pbuh*).

As one of prophetic fruits, pumpkin is stated in the following Quranic verse and a Hadith stated below which are:

"And We caused a plant of *yaqteen* (pumpkin) to grow over him."

(Quran: Surah As-Saffat 37:146)

"I accompanied Allah's Apostle to that meal. He served the Prophet with bread and soup made with pumpkin and dried meat. I saw the Prophet taking the pieces of pumpkin from the dish." Anas added, "Since that day I have continued to like pumpkin."

(Hadith No.305, Vol.3, Book 34, Sahih Bukhari)

Thus, the availability of pumpkin is a good potential to boost Malaysian economy, especially to the farmers in divers their source of income. This in line with the government's policy to promote commodities which have high added values and good export potential. In addition, with government agencies support towards planting pumpkin will help in increase total export of agriculture sectors of Malaysia in the future.

4.4 Watermelon

Watermelon (*Citrullus lanatus* (Thunb.) Matsum. et Nakai) widely planted and consumed around the world is a popular and important fruit [45]. Watermelon are major crops of the gourd family *Cucurbitaceae*, which do not interbreed and draw from distinct botanical origins [46,47]. Watermelon has a narrower genetic base than melon, and it is native to the drier areas of south-central Africa, near the Kalahari Desert (Namibia and Botswana), where bitter and sweet forms were found in the wild and

consumed by humans and animals [48-51]. Watermelon has been cultivated in Africa for over 4000 years. Seeds and plants parts found in Egyptian tombs indicate that watermelons were widely cultivated in the Nile valley before 2000 BCE. From Africa, they were introduced to India at about 800 CE and China at 900 CE, and then extended to Southeast Asia, Japan, Europe and the Americas in the 1500's [52]. Watermelon, is an annual plant with long angular trailing vines bearing lobed leaves, branched tendrils and separate solitary male and female flowers. The plant is typically monoecious with alternating staminate (male) flowers appearing first and pistillate (female) flowers later with ratios in favour of maleness (e.g. 7 staminate: 1 pistillate). Watermelon fruits are round, oval or elongated with a size typically ranging from 1.5 to 15 kg. The rind is light to dark green with stripes of various patterns. The flesh may range from white, green, yellow, orange to red, though consumers associate the internal quality with deep red, pink or intense yellow, in addition to sweetness and texture. Watermelon (*Citrullus lanatus*) is a popular fruit among Malaysians locally known as *Tembikai*. Red-fleshed seeded and seedless, and yellow-fleshed watermelons are mostly selected as a dessert and available throughout the year in local markets.

Based on a study, watermelon in scientific name known as *Citrullus lanatus* are plant in Malaysia with total areas is 13,814 hectares [53]. To meet the growing consumption demand worldwide, monocultures become the major cropping system for watermelon production recently. According to a scholar, the period from fruit setting to optimal harvest maturity varies with cultivar earliness, generally ranging from 30 to 45 days, and constitutes a reliable but cultivar specific harvest maturity index [54]. Watermelon yield losses are highest during rainy and humid seasons. In Malaysia, about 11,270 hectares was grown in 2009 producing 228,880 million tons of watermelon. Most area planted with watermelon was Rompin, Pahang (2,543 ha) followed by Kluang, Johor (1,119 ha) and Mersing, Johor (828 ha). Other states growing watermelon was Kelantan (1,006 ha), Pahang (1,777 ha) and Terengganu (1,128 ha) respectively (FAMA, 2014). For domestic market, watermelon demand throughout the year but increase in hot season and fasting month. Most watermelon from Malaysia exported to Singapore, Hong Kong and Brunei [55]. Production of watermelon is for domestic and export market as shown in Table 5 below.

Moreover, based interview conduct with farmer:

"Cost of production for watermelon is about RM 10,431.00/hectare. Farm gross production about RM 12,500/ha based on 25,000 kg fruit/ha at RM 0.50/kg giving net farm income about RM 2,067.00/ha for 2.5 months. Return for RM1.00 about RM1.20 and cost of per kilogram calculated at RM0.42. This crop is high risk commodity to establish. Most farmers jointly capitalised between input suppliers, marketers and grower in their activity. Thus, this commodity needs lots of experience farmers to venture as there was technology available in the country."

(Watermelon Farmer: Mr. Mohd Anim Hosnan)

Table 5: Total Import and Export Watermelons.

Import and Export (Thousand tons)	2010	2011	2012	2013	Total
Import	1347	558	781	553	3239
Export	54977	50643	49591	50688	205,899

Source: FAO (2017).

Despite of large export value to neighbour countries, watermelon has emerged to the forefront in research advances due to its attractive high nutrient value. Study showed quality attribute of watermelon is a critical aspect of postharvest storage, consumer preference, and commercial acceptability of the fruit [56]. Watermelon mostly contain water (93.2%)

and other nutrient such as sugar many vitamins (Thiamine, Riboflavin and Niacin). It's an herb type crop and creeps with oval leaf shape. The flower is monoicous and yellow colour. Watermelon fruit was roundish or oval or long oval shape with dark green colour and weighed between 7 - 15 kg depending on variety. According to a scholar, different varieties of watermelon had different nutritional contents and physico-chemical

characteristics [57]. The watermelon is really benefitting to health. The

nutritional contained as shown below in Table 6:

Table 6: Nutritional Content of Watermelon.

Nutritional	Per 100 grams
Protein	0.61
Ash	0.25
Water	91.45
Carbohydrates	7.55
Fibre	0.4
Fructose	3.36
Calcium	7 mg

Source: [Malaysian Fruit](#) (2010).

In addition, there are many benefits of watermelon to the human body. Watermelon fruit consist of potassium and magnesium is essential to bring down the blood pressure. It is decreasing the risk of getting heart disease and stroke. Among others, potassium in watermelon is helping cleaning toxic material in kidney stone and this will maintain a good function of kidney. Watermelon juicy sweet fresh water can effectively rehydrate body heat [58]. In Malaysia, the fruit is selling at fruit hawkers, market. Moreover, watermelon has fibre, zero fats and low in calories. It is a good fruit to lose weight [59]. Various mineral and vitamin in watermelon maintain the good level of insulin in body which can help in control blood sugar. Even though diabetes patient can eat the watermelon. For example, Vitamin B in the fruit produce energy to body. It is good to eat the fruit instead of drinking chemical drink. Meanwhile, Vitamin C protect eye of drying up and protect from illness of glaucoma and optical nerves [60]. The antioxidant profile of watermelon. It is helping to kill the cancer causing free radical especially asthma, colon, prostate and hearth cancers. The red component Carotenoid in watermelon can prevent getting risk of cancer. Phytonutrients is effective in protect and maintain good health and proper functioning of eye, organ, constipation and secretion system. Watermelon is full of vitamins and minerals. Watermelon is the perfect *sunnah* accompaniment to dates when breaking fast.

According Ibn Qayim Al Jawziyyah in Medicine of the Prophet, Prophet Muhammd (*pbuh*) used to eat watermelon with dates to balance out the effects of these foods, date is hot and moist while watermelon is cool and wet. Meanwhile, Aishah reports that, "*Prophet Muhammad (pbuh) ate watermelon with fresh dates.*". In Tirmidhi and other narrations, in explaining this, Prophet Muhammad (*pbuh*) also said, "*The cold effect of one removes the heat of the other, and the heat of one removes the cold effect of the other.*" (Hadith Tirmidhi: 189, 2).

Watermelon [*Citrullus lanatus* (Thunb.) Matsum. et Nakai] are popular annual fruit crops of the gourd family *Cucurbitaceae*, drawing from discrete botanical backgrounds. The current review is instrumental in the efforts for improving quality and expanding market share for watermelon. Thus, there is potential for watermelon to plant in mass scale productivity in Malaysia due to its demand, nutritious and impact to the economy since it been exported to several countries in this region.

5. CONCLUSIONS

As recommendation, several strategies have been outlined to increase the production of prophetic fruits. Traditional farms will be converted into modern farms using latest technologies and knowledge-based production systems. Similarly, idle lands will also be consolidated and rehabilitated with improved infrastructures, drainage and irrigation facilities. Permanent food production parks will be set up to ensure sustainability of food production in the country. For priority prophetic fruits, the Malaysian government will set up contract farms with guaranteed markets, minimum prices and easier access to markets. The government will also ensure adequate funds are available for investment and the farmers can get easier access to credits. The small and medium enterprises are also encouraged to process prophetic fruits into ready to eat minimally processed or fully processed products. There is a need to develop specific targeted programmes to increase the production of prophetic fruits in Malaysia, especially among the farmers. In conclusion, the prophetic fruit industries in Malaysia have the potential to further grow and contribute to the expansion of the agricultural sector. The supportive government policies had given the fruit industry the necessary impetus for accelerated development and had encouraged the commercial production of prophetic fruits for local consumption, export and processing. The growth of the fruit industry further gathered momentum with the active participation of the

government and private sectors. The Economics Transformation Programme (ETP) under the Entry Point Project (EPP) number seven has stressed that fruit productions be upgraded to meet the growing domestic and export markets. Production is expected to increase through expansion in cultivation area as well as improvement in productivity per unit area of cultivation. At the moment, Malaysia does not have a specific campaign to promote planting prophetic fruits due to its availability to be plant and harvest. Concerted efforts in promoting planting of domestic prophetic fruits must be properly planned and implemented for benefit of the country. The review has shown that potential to made Malaysia as a hub of planting prophetic fruits among others is dates palm, figs, pumpkin and watermelon which know consume regularly by Prophet Muhammad (*pbuh*) in daily life. Thus, planting and cultivate local prophetic fruit is not only for domestic consumption, also benefits to the Malaysia economics in term of exporting fresh fruit and secondary products made from these prophetic fruits. This study contributes to the literature of planting several prophetic fruits which is available to cultivate, plant and harvest in Malaysia.

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