Looking at the Transformation of China's Fruit Export Industry from the Loss in Industry Chain

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Abstract: china is a Major Fruit Producer, But Its Exports Are Far Less Than Those of Small Neighboring Countries. This Paper Studies the Factors That Affect China's Fruit Exports from the Loss in Industry Chain; Points out Loss Problems during Cultivation, Commercialization and Logistics; Analyzes the Causes of Loss in These Stages and Its Impact on Fruit Exports; and Finally Puts Forward Corresponding Detailed Suggestions on Industrial Transformation According to Loss in Different Stages.

1. Introduction

Since the 1980s, China Has Adopted Policies for a Free Price System and Multi-Channel Selling for the Fruit Industry, Which Boosted Fruit Production in China. Since the Mid-1990s, China Has Consistently Ranked First in the World in Fruit Production and Its Cultivation Area. in 2018, China's Cultivation Area of Fruit Reached 11.168 Million Hectares, 19.69% of That of the World, with a Yield of 261 Million Tons. among Them, the Output of Apple and Pear Were Both the Highest in the World, Accounting for about 1/3 and 1/2 of Total Output Respectively, and the Output of Citrus is Only Second to Brazil and the United States, Accounting for about 1/10. China's Fruit Production Volume is One of the Highest in the World, But It Cannot Get the Edge in Exports. Its Export Share is Not Even Comparable to That of the Small Asean Countries Nearby, Which in Fact Has Much to Do with the Overall Low Efficiency of China's Fruit Industry Chain and Great Loss in Some Links. as a Result, the Fruit Industry in China is Facing Problems Such as Poor Fruit Quality, Difficulties in Increasing the Income of Fruit Farmers, and Weak International Competitiveness.

Based on Analyses and Comparisons of China's Fruit Industry Chain and Other Industry Chains with Good Economic Benefits, This Paper Points out the Problems Existing in China's Fruit Industry Chain and Their Impact on China's Fruit Exports, and Then Puts Forward Countermeasures for Loss in Each Stage of the Industry Chain.

2. Current Situation of Fruit Industry Chain in China

The fruit industry chain covers a wide range, including industrial stages like fruit tree cultivation, seedling production and supply, fruit tree planting, as well as storage and processing of fruit in the production and planting links; stages like purchase of raw material, as well as purchase and sale of seedling, fruits and fruit products in the material purchase and sale and product sales links; stages like agricultural technology services, and circulation and transportation in the production and service links. All above links have experienced certain loss. Taking seasonal variation into further consideration, China's fruit export situation is thus relatively unstable.

2.1 Overview of China's Fruit Industry and Industry Chain

China's fruit cultivation is mainly based on cooperatives, supplemented by individuals, providing purchase approaches for wholesalers. Buyers are mainly wholesalers in large wholesale markets in various regions, supplemented by nearby stores. Goods are delivered to the destination through

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local logistics companies or personal logistics. Large wholesalers then sell their goods at a small profit to small wholesalers, fruit retailers or retail buyers. This is the industry chain model for domestic sales in China. Export is one of the sale directions for wholesale buyers, with export from producing area and export by large wholesalers as the main body.

Production cooperatives and individual planters have direct sources of goods, and they can find foreign customers through forwarding companies or simply by themselves. Contracts are determined through the procedures of offer, counter-offer, acceptance, etc. Exporters process, stock, pack and write shipping marks at the original place of delivered goods. At the same time, preparations are made, such as urging a L/C, checking the L/C, revising the L/C, presenting to CCIB for inspection, buying insurance, obtaining certificates of insurance, renting trucks, booking shipping space for cargo by sea or by air, etc. According to contracts, exporters shall transport the goods to the port of export by domestic logistics within agreed period, and export after customs clearance. Large direct wholesalers will choose competitive original places of delivered goods to meet the diversified needs of customers. They will export several varieties of fruits at the same time to increase their own advantages and competitiveness.

2.2 Overview of Loss in China's Fruit Industry Chain

The preliminary processing of fruits in the producing area mainly includes purification, classification and grading, drying, pre-cooling, storage, preservation, packaging and other links. In recent years, China's agricultural product processing industry has developed rapidly, but primitive methods, crude facilities and backward technology in the preliminary processing leads to declining post-harvest fruit quality with great losses. Post-harvest loss rate of fruits is 15%-20%, which is much higher than the average loss rate in developed countries. Economic loss reaches more than RMB60 billion, equivalent to a total input and output of more than 20 million mu of arable land. Over the years, farmers and professional cooperative organizations have completed more than half of the output of agricultural products, with some varieties even reaching more than 80%. A great deal of post-harvest loss not only seriously eroded the basis of increasing agricultural efficiency and farmers' income, but also brought pressure and hidden dangers to the effective supply and quality safety of agricultural products. Long production cycle of fruits and great investment required at the early stage of building an orchard bring risks. However, the Chinese government currently lacks specific preferential policies to support the development of the fruit industry, with no sufficient financial support to strengthen the construction of orchard infrastructure, accelerate the development of fruit processing industry, and improve the storage conditions of fruits. Lack of special loan indicators in financial institutions, and problems such as reduction or exemption and partial refund of taxes on agricultural specialty products in the structural transformation of fruit also restrict the competitiveness of fruits in China, and loss are even more inevitable.

3. Reasons of Loss in China’s Fruit Industry Chain

3.1 Scattered Planting Areas

The vast majority of fruit production in our country are done in a free and scattered way, and the planting units are usually households. If we take a look at the agricultural development models of countries around the world, it can be found that various agricultural development modes have been formed according to specific national conditions. (1) The United States utilizes elements of land, technology and capital to organize production and forms a highly mechanized large-scale production model; (2) Japan and the Netherlands utilize elements of technology and capital, and form a factory-based protective production model; (3) Israel utilizes elements of technology and capital, and forms an accurate agricultural production model; (4) China utilizes the element of human resources and forms a scattered household responsibility production model. The contradiction between China's small-scale agricultural production and its large market is prominent. This kind of small-scale scattered model has increased the agricultural production cost and reduced the production efficiency. It has also increased the price of agricultural products in China, and thus

result in a decline in its international competitiveness. For the long-term development of China's agriculture and improvement of its international competitiveness, it is necessary for China to change the scattered production model. Moreover, uneven cultural level of Chinese planters brings thoughts with great distinction. In addition to poor environment protection awareness, many problems will occur. Different producers use different fertilizers, spray different pesticides and harvest at different times, so the shape, size and maturity of fruits are different. As a result, some fruits will not meet the export requirements or even the eating requirements at the time of planting. Thus, loss start from the planting as the output is greatly reduced with a low average output rate.

3.2 Lagging Standardized Construction

291 indicators are stipulated for maximum residues of 104 pesticides in 45 kinds of food in China, while Codex Alimentarius stipulates 2439 standard indicators for maximum residues of 176 pesticides in 375 kinds of food. The national standard *Maximum Residue of Pesticides in Food* (GB2763-2005) issued and implemented in 2005 involved only 48 kinds of original pesticides in apples, far less than those in the United States, Japan and the European Union. Foreign standards are formulated at the production stage while China's standard formulation is rather backward and time-consuming. As China's fruit export standards lag behind international standards, some exported fruits that pass the domestic inspection are returned or destroyed by the importing country due to excessive antibiotic and pesticide residues. Thus, the export volume cannot reach a larger quantity, while returned or destroyed fruits cause loss.

3.3 Insufficient Storage and Preservation Capacity

Pre-cooling, cold storage, heat preservation and transportation to the consumer market makes up a complete cold chain system of fruit. More than 90% of fruits in Japan are precooled, but only 5% in China. Only 10% of fruits in China can be transported through cold chain system. The storage capacity of fruits in China is 20% of the total output, and most of them are simple storage. Cold storage and controlled atmosphere storage only account for 7% of the total storage capacity, while it is 100% in developed countries, and 70-80% are controlled atmosphere storage.

The annual loss caused by improper preservation of fruits in China is as high as 25% to 32%, and the annual loss volume reaches 80 million tons, with an estimated value of RMB80 billion. Since the founding of the People's Republic of China 50 years ago, five major fruit producing areas have been established, and they are located in northwestern China, southern China, or at the old route of the Yellow River, Bohai Bay and the Yangtze River Basin respectively. Among them, Guangdong Province in Southern China has the highest fruit production in all provinces. Past decade witnessed the fastest period of the development of fruit trees since the founding of the People's Republic of China, with output of pear, apple and citrus ranking first, second and third respectively in the world. A multi-variety structure has been formed with pears, apples, citrus, bananas and peaches as the main part, and tropical fruits such as litchi, loquat and kiwi are also included. The consumption level and per capita fruit ownership have been greatly improved. However, due to the lack of fresh-keeping capacity logistics, great loss of fruit occurs in transportation every year. Taking Shandong Province as an example, its apple output accounts for more than 40% of the total national output, but its post-harvest loss are as high as 20%-30%, sometimes as high as 40% during transportation, resulting in waste of resources, environmental pollution and economic loss.

4. Impact of Loss in China's Fruit Industry Chain on Exports

Production comes with loss. Fruit industry is the third largest industry in China's agricultural planting industry after grains and vegetables. It is the bulk product of China's agricultural exports, playing an important role in adjusting the industrial structure of agriculture, increasing farmers' income, developing the rural economy and improving the ecological environment. As an industrial chain, the cooperation between the upstream and downstream links in China's fruit industry is still relatively loose, especially when the main body of fruit cultivation is still a large number of

scattered small-scale farmers, which is far from being able to deal with pressures and challenges in the development of fruit industry in terms of technological progress, changes in fruit consumption structure and consumer perspectives, and intensified market competition at home and abroad.

4.1 Impact of Undesirable Fruit Cultivation on Exports

According to Table 1, the national fruit cultivation area increased by 0.29% and the output increased by 3.4% year on year in 2018. What cannot be ignored is that there are some problems that need to be solved urgently in the current fruit production. First, the pressure to rebuild old orchards is increasing. According to the statistics of the Ministry of Agriculture, the old orchards aged more than 20 years now account for about 1/6 of the total fruit cultivation area in the country. Years of production have led to a decline in soil fertility, a decline in fruit quality and a substantial increase in production costs. Plus, a high density of fruit trees is not conducive to the promotion and application of light and simple cultivation techniques. Second, the pressure to control pests is increasing. In some fruit producing areas, the phenomenon of “overlooking prevention and emphasizing on treatment” is still common, and a reasonable and effective technology system that comprehensively prevents and wipes out plant diseases and insect pests has not yet been formed. Especially with the development of fruit trade and the transportation of fruit trees and seedlings, the threat of quarantine diseases and insect pests such as Fusarium wilt of banana and codling moth has increased. Third, Chinese planters have different cultural qualities and different ideas. Coupled with poor awareness of environmental protection, many problems arise. Different producers use different fertilizers, spray different pesticides and harvest different times, so the shape, size and maturity of fruits are different. This leads to the appearance of fruits that do not meet the export requirements or even the eating requirements at the time of planting. The output is also greatly reduced and the average output rate is low. Third, uneven cultural level of Chinese planters brings thoughts with great distinction. In addition to poor environment protection awareness, many problems will occur. Different producers use different fertilizers, spray different pesticides and harvest at different times, so the shape, size and maturity of fruits are different. As a result, some fruits will not meet the export requirements or even the eating requirements at the time of planting. Thus, loss start from the planting as the output is greatly reduced with a low average output rate.

In Table 1, it can be seen that although the orchard area has increased and the fruit output has increased year by year, the output of quality fruits eligible for export is very small due to undesirable cultivation, such as the influence of planting area, planting soil, and farmers' experience and quality. As a result, China's export volume, export price and total export output of fruit were influenced. We can see from the table that the total export volume has decreased.

Table 1 Relative Data of China’s Fruit Industry in 2016-2018

	2016	2017	2018
Fruit Output (ten thousand tons)	24,405.2	25,241.9	26,100
Orchard Area (thousand hectares)	12,981.55	11,136	11,168
Export Output(ten thousand tons)	368	361	/

Source: China Statistical Yearbooks Database

4.2 Impact of Insufficient Commercialization of Fruits on Exports

For a long time, China has attached great importance to pre-harvest cultivation and pest control of fruits, but neglected post-harvest treatment. However, post-harvest commercialization of fruits (such as cleaning, sterilization, grading, waxing, packaging, etc.) is an important step to increase the added value of products. China’s technology in this field is relatively backward. The fruits that have been completely commercialized only account for about 1% of the total output of fruits and the storage ratio is less than 20%. This leads to serious decay losses in the whole post-harvest circulation process of fruits such as harvesting, grading, packaging, transportation, storage, wholesale and retail. Statistics show that about 25% of the products are rotten and cannot be used

every year, and agricultural products are wasted in the logistics process. According to conservative estimates by relevant departments, the decay loss of fruits and vegetables after harvest can almost meet the basic nutritional needs of 200 million people. Foreign fruits are stored and processed after harvest, with a value-added ratio of 1: 3.8, while China is still at the level of 1: 1.8.

In recent years, China's agricultural product processing industry has developed rapidly, but primitive methods, crude facilities and backward technology in the preliminary processing leads to declining post-harvest fruit quality with great losses. Post-harvest loss rate of fruits is 15%-20%, which is much higher than the average loss rate in developed countries. Economic loss reaches more than RMB60 billion, equivalent to a total input and output of more than 20 million mu of arable land. Moreover, due to the lack of characteristic varieties and the neglect of post-harvest commercialization and brand building and publicity, China's fruit export is high in yield and low in value. For example, China's kiwi production accounts for 40% of the world's total, but the total output value is only 8%, and China's kiwi can rarely be seen on foreign high-end fruit shelves. The lack of brand building and the low level of industrialization have seriously affected the expansion of China's fruit export scale. At present, domestic fruit cultivation by fruit planters is mostly scattered, and the contradiction between small production and large market is prominent. Fruit marketing companies have not formed a consortium of interests with fruit planters, thus their ability to resist risks is relatively weak. The downstream market of fruits is too limited and the proportion of deep processing is relatively low. In countries where the apple market is relatively mature, 1/3 of the output is put into storage, 1/3 is for sales of fresh fruits and 1/3 is for squeezed juice, while more than 70% of the apples in China are put into storage directly. Malicious acts of some fruit exporting businesses have led to price confusion of exported fruits, especially the low export price of apples, which directly affects the normal income of ordinary fruit farmers. There is a great demand for apples in Russia, Bangladesh, Sri Lanka and other countries, and their supplying places are basically distributed in Liaoning, where Zhuanghe is the largest apple producer. However, some businesses improperly lower their prices to compete with rival companies, which breaks the orderly development of the fruit export market and leads to abnormal market phenomena. This situation will not only affect the production enthusiasm of ordinary fruit farmers, but is also not conducive for brand building abroad for Chinese businesses.

4.3 Impact of Fruit Loss in Logistics on Exports

The cold chain fresh-keeping industry of agricultural products is an important link of the post-harvest fruit industry logistics and is of great significance to further extend the modern fruit industry chain and substantially increase income of fruit farmers. However, due to the limited application and the slow development of post-harvest fresh-keeping of fruits and cold chain logistics industry in China, the annual loss rate of fruits is still very alarming. Relevant statistics show that food in need of low-temperature logistics in China are mainly divided into several categories: cold drinks, meat products, frozen foods, dairy products, aquatic products, fruits and vegetables. However, at present, only 10% to 20% of fruits in China use low-temperature logistics, and the varieties are limited to some fruits with relatively high economic benefits, while the percentage is 80% in developed countries. Data from the National Research Center Of Agricultural Product Fresh Keeping Engineering and Technology shows that the loss rate of fruits produced in China every year is as high as 25% to 30% from the field to the dining table, while the loss rate of fruits in developed countries is generally controlled below 5%, and the loss rate of American fruits in fresh-keeping logistics is only 1% to 2%. Experts said that although our country has a complete range of equipment manufacturing, the application proportion of cold chain in fruits and vegetables is very low. In the United States and other developed countries, the loss rate of agricultural products businesses in logistics is only 2%-5%.

As a large agricultural country, China has a strong advantage in the production of fresh agricultural products. However, due to the lagging development of cold chain, fruit exports only account for 1-2% of the total output, and 80% of them are primary products, which lack competitiveness in the international market.

Improper temperature and humidity, water loss and transportation delay result from incomplete refrigeration transportation system, and cause loss in 42.8% of fruits, which is a rather high percentage. Other reasons like the quality of the fruit itself have slight impact on the loss of the fruit, as exported fruits themselves are carefully selected first-class mature fruits, which guarantees quality and protects brand image. But in the long run, this loss should not be neglected. Therefore, the loss in transportation has a great influence on the quantity of fruit exports, export quotation and total export volume. Corresponding measures should be taken to address problems in this section.

5. Case Study: Pear Exports of Xinji City, Hebei Province and Enshi County, Hubei Province

1) If we take pear exports of Xinji City, Heibei Province and Enshi County, Hubei Province as examples. Xinji City, known as the "hometown of yali pears", is the main producing area of pears with high-level pear tree management skill and large cultivation scale. Golden pear cultivated in Xuan'en County enjoys a high reputation both at home and abroad.

Table 2 Variable Declaration And Descriptive Statistical Analysis

	Variable	Measures and Valuations	Mean Value	Standard Deviation	Expectation
	Export Price of Pears (Y)	Unit Price of Pears (Yuan/kilogram)	23.2982	1.2387	
Cultivation Conditions	Cultivation Scale of Pears (X1)	Cultivation Area of Pears (mu)	5.3737	7.9764	+
	Member of Cooperative (X_2)	Yes=1; No=0	0.2260	0.4192	+
	Cultivation Experience of Planters (X_3)	Cultivation Years (Year)	13.1529	7.7483	+
Commercialization of Pears	Variety of Pears (X_4)	Golden Pear=1; Yali Pear=0	0.4258	0.4957	?
	Packaging of Pears (X_5)	Packaged=1; Not Packaged=0	0.2775	0.4488	+
Control of Loss	Use of Refrigerated Vehicles (X_6)	Yes=1; No=0	0.1818	0.3866	+
	Distance from the Nearest Refrigerated Chamber (X_7)	>2.5km=1;<2.5km=0	0.2775	0.4488	-
	Channel of Technology Publicity (X_8)	Cooperatives and Private Institutions=1; National Publicity Institution or None=2	0.1627	0.3700	+

Note: "+" stands for positive influence; "-"stands for negative influence, "?" stands for uncertain influence

Time of Source:2017

2) Regressive Model Applied:

$$\ln(P_i)=\alpha_0+\beta X_i+\gamma_i Z_i+\varepsilon_i \quad (1)$$

In equation (1), X_i is the controlled variable of pear fruit loss, Z_i is the controlled variable of other market forces and farmer qualifications, etc. A Robust Weighted Least Squares Method (robust WLS) was used in the analysis to solve the problem of heteroscedasticity and adjusted at 95% high efficiency in the end. Due to logarithmic processing of variables, heteroscedasticity is further reduced. The data is a cross-sectional data, and sequence correlation can be ignored. Through the multicollinearity test, it can be found that the expansion factor VIF of the variable equation is less than 10, so there is no obvious collinearity between variables.

Table 3 Regressive Results Of Factors Influencing Export Prices of Pears

	Influencing Factor	β	T Value	P Value
Cultivation Conditions	Cultivation Scale of Pears (X1)	0.0374	1.7604	0.0801
	Member of Cooperatives (X_2)	0.0908	0.6535	0.5143
	Cultivation Experience of Planters (X_3)	0.0331	2.4669	0.0146
Commercialization of Pears	Variety of Pears (X_4)	1.3614	2.7378	0.0068
	Packaging of Pears (X_5)	0.2205	1.3139	0.1908
Control of Loss	Use of Refrigerated Vehicles (X_6)	0.4522	2.3435	0.0204
	Distance from the Nearest Refrigerated Vehicles (X_7)	-0.2627	-2.2718	0.0243
	Channel of Technology Publicity (X_8)	0.7203	3.7995	0.0002
	R^2		0.6146	

3) Analysis of Measuring Results

(1) Cultivation conditions. The variable of cultivation scale has passed the 10% significance test. The coefficient sign is positive, which is consistent with the expectation. This shows that the larger the cultivation scale, the higher the average export price under the same other conditions. This also shows that the larger the cultivation scale, the higher the specialization level of cultivation, the more advanced and advantageous the conditions will be. Therefore, more yield will be obtained and more quality pears will be exported. As a result, the quantity and export price will be desirable with such competitiveness.

Another variable, member of cooperatives, has not passed the significance test. The reason might lie in the underdeveloped construction of rural cooperatives in this area. It is a pity that the variable fails to reflect its positive effects on output, quality, price and export of pears.

The variable of cultivation experience of planters has passed the 5% significance test, which is consistent with the expectation. This shows that the longer the cultivation experiences of farmers, the more he/she knows about the changeable cycle of pear export and the demand of the international market. With more experiences and certain professional knowledge, they could reduce loss in cultivation. To be specific, experienced planters can effectively prevent disasters at an early stage and deal with emergency situations in time so that further loss can be controlled. Once the quality of export pears is ensured, they will have more say when negotiating a price with others. Having an edge on export prices will help a lot. On the contrary, undesirable cultivation will have a negative impact on exports.

(2) Commercialization of pears. The variable of variety of pears has passed the 1% significance test, which shows that the export price of golden pear is higher than that of yali pear. Golden pear is widely cultivated and has a large output at home and abroad. Therefore, export volume of golden pear is higher. According to the theory of comparative advantage, exporting golden pears provides an advantage in negotiating export price and can improve the export value of pears. Moreover, as this area is the main producing area of golden pears, China is more competitive in export than other countries. As China's annual export proportion of pears is very large, and as the golden pear is still competitive among the favored ones, the export of good varieties benefits a lot.

The variable of packaging of pears did not pass the significance test, and the reason might lie in that planters' failure to meet the packaging requirements of importers. Simple package cannot improve pears' quality. It can be seen that the variable affects the export price and export volume of pears. A good package that meets the requirements can increase the added value, quality and brand influence of products. Inadequate commercialization will make our products unable to keep up with the needs of the masses and the market. Failure of too many pears to be appreciated will lead to depreciation and rotten fruits. Such loss will have a considerable impact on exports, including export prices and export volume.

(3) Control of Loss. The variable of use of refrigerated vehicles has passed the 5% significance test, and the coefficient is positive, which is consistent with the expectation. This shows that under the same other conditions, planters using refrigerated vehicles can ask for higher export prices than planters not using refrigerated vehicles. Statistics show that planters using refrigerated vehicles to

transport pears in Xinji City, Hebei Province and Enshi County, Hubei Province have an advantage of RMB0.82 and RMB0.65 in unit export price than planters not using refrigerated vehicles. In the mature period of pears, planters not using refrigerated vehicles are unable to retain their pears' freshness. Loss like decline in freshness and rotten fruits brings negative impact to export volume and value. Besides, no advantages can be gained when negotiating the price as the fruits are not fresh, which might even damage their corporate images.

The variable of distance from the nearest refrigerated chamber passed the 5% significance test, and the coefficient was negative, which was consistent with the expectation. It shows that under the same other conditions, the closer to the refrigerated chamber, the higher the export price of pears will be. According to statistics, in Xinji City, Hebei Province and Enshi County, Hubei Province, export price of pears for planters less than 2.5km away from the refrigerated chamber is RMB0.51 and RMB0.41 higher per kilogram than that planters further than 2.5 km away. Planters closer to refrigerated chambers will put pears in for storage, while planters at a distance are inclined not to do so as they will have more loss considering the long distance. Thus, planters at a distance do not gain an advantage in export prices and loss of rotten fruits influences export volume and total value. They can only sell pears at a peak export period of pears at low prices, while those pears with access to refrigerated chambers can be exported at high prices as off-season fruits, which can also promote export.

The variable of channel of technology publicity has passed the 5% significance test, and the coefficient is negative, which is consistent with the expectation. This shows that under the same other conditions, publicity led by government is not helpful for pear exports and have little impact on planters to improve the quality of pears and increase the knowledge of storing pears. However, technology publicity under the guidance of non-governmental organizations is more acceptable to fruit planters and can greatly improve their technology and knowledge, which is of great help to the quality, export volume and export price of pears. It also reflects that our government has not done well enough in this aspect as no applicable implementation plan is available for planters to follow. Therefore, our government should speed up to form a set of supervision mechanism to help exports.

6. Inspiration and Suggestions on Links with Loss in China's Fruit Industry Chain

No matter how China's domestic demand market expands in the future, fruit exports account for only 5% of total fruit production, which is not in line with the law of economic development. China's fruit industry is a sunrise industry and when compared with any other country in the world, we all have unique advantages, such as resources, scale, location and price. China's fruit export situation should be further improved at a faster pace. Compared with livestock products, vegetables and even cereals and oils, fruits are generally safer. With improvement in living standards, demand for fruits is increasing and the world's fruit import and export volume will become more and more prosperous. To keep pace with the times, this paper provides following suggestions on how to give full play to the advantages of China's fruit industry and expand fruit exports.

At present, fruit prices in China's fruit market is 40% to 50% lower than that in the international market. If we can do a good job in the post-harvest commercialization of fruits, our fruits will not only have price advantages, but also quality competitiveness. As long as all levels of the country, especially high-level managers, are more aware of the advantages of China's fruit export, and pay great attention to this advantageous industry, it is believed that the huge potential and benefits of fruit export can be brought into full play. China should implement a super ministry system that unifies national fruit management systems, so as to give better play to the advantages of China's fruit industry.

Modern fruit logistics should also be developed to control all-way logistics in accordance with international standards and norms. Associations and organizations in the industry should play the role of intermediaries that connects government with businesses and producers, and strive for more national support for fruit producers and fruit import and export businesses in production subsidies, construction of agricultural product markets, international market development, tax rates, tariff, etc. Associations should also guide fruit businesses to abide by morality, standardize the order of fruit

import and export, and jointly open up the world market.

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