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Geographical Indication Protection and Brand Cultivation of Hefeng Tea in Wuling Mountain Area

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Abstract Located in Wuling mountain area which is the main battlefield for poverty alleviation in the new stage, Hefeng County of Hubei Province has been recognized as a "National Key Tea-producing County in 2013" (ranking 17th) and one of the "Top Ten Ecological Rea Counties of China in 2012". As the first county of tea export in Hubei Province, it has been awarded the "Town of the Chinese Tea" certificate by the State Forestry Bureau. This paper introduced the characteristics of geographical indication and the current situation of brand of Hefeng Tea. Later, it analyzed its geographical indication protection and brand cultivation strategies and puts forward 9 suggestions.

Key words Tea, Geographical indication protection, Brand cultivation, Hefeng green tea, Hefeng Yihong black tea, Hefeng County, Wuling Mountain area

1 Introduction

Consisting of 71 counties (cities, regions) in the border region of Hubei Province, Hunan Province, Chongqing Municipality and Guizhou Province, Wuling Mountain area has integrated the features of an old revolutionary base area, minority nationality area and poverty-stricken area. It is a contiguous destitute area with large inter-provincial interface boundary, a great many minority nationalities and widespread impoverished people^[1-3]. Accelerating the development of Wuling Mountain area and strengthening the efforts to poverty alleviation are of great importance to promote ethnic unity and social harmony and stability, realize the overall strategic layout of the country and achieve the goal of building a well-off society.

The *Development and Poverty Alleviation Program of Wuling Mountain Area* (2010–2020) has emphasized to accelerate base construction for special regional agricultural products and vigorously implement a batch of significant projects including the high quality tea project. The tea-featured agricultural bases in this area include the Se-enriched tea bases in Enshi City, Hefeng County, Lichuan City, Xuan'en County, Laifeng County, Wufeng Tujia Autonomous County, Changyang Tujia Autonomous County and Baojing County etc. There are also high mountain tea bases in Yinjiang Tujia and Miao Autonomous County, Jiangkou County, Songtao Miao Autonomous County, Guzhang County, Yuanling County, Anhua County and so on.

Under the jurisdiction of Enshi Tujia and Miao Autonomous Prefecture in Hubei Province, Hefeng County is located in Wuling mountain area which is the main battlefield for poverty alleviation

in the new stage. It has been recognized as a "National Key Tea-producing County in 2013" (ranking the 17th) and one of the "Top Ten Ecological Rea Counties of China in 2012". In addition, it has been awarded the "Town of the Chinese Tea" certificate by the State Forestry Bureau. In September, 2010, Hubei Province launched the cultivation project of ten major export bases for special agricultural products. Hefeng County has been recognized as one of the 10 export bases of agricultural products including tea. Now, Hefeng County is the first county of tea export in Hubei Province.

In Hefeng County, the production pattern combined with black tea, green tea, scented tea, gunpowder tea, Jane eyebrow tea and famous high-quality tea etc. has formed, and the industrialized system of "company + base + peasant household" has been built primarily. The tea base area of the whole county has reached over 163 million square meters, in which clonal tea plantation accounts for nearly 67 million square meters and the certified area of organic tea bases accounts for 13 million square meters. Tea production has reached 315 000 piculs, creating an annual output value of 490 million yuan.

In this county, tea is the pillar industry with distinctive regional features to increase farmers' income, improve enterprise efficiency and increase fiscal taxation. It is also the focus of industrial poverty alleviation. The lack of brand building is the bottleneck for the development of tea industry. Therefore, this paper will analyze the strategies for geographical indication protection and brand cultivation of Hefeng tea in Wuling Mountain area.

2 Geographical indication and brand of Hefeng Tea

Geographical indication is one of the seven independent intellectual properties specified in the TRIPS Agreement of WTO and is one of the three major issues for discussion in Doha Round Negotiations on Intellectual Property. It is an important component of agricultural intellectual property^[4-6]. Geographical indication is a

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symbol determined by the natural factors or humanity factors of a region so as to indicate the source area of a product as well as the specific quality, reputation or the other characteristics of the product.

2.1 Humanity factors of geographical indication The humanity factors of geographical indication for Hefeng tea mainly include: Long history of tea cultivation; Historic tea brand; Ancient tea making techniques; Rich tea culture heritage; Standardized production and green ecological development.

2.1.1 Long history of tea cultivation. Hefeng tea has a long history of cultivation. It is recorded in the *Jingzhou Land Chronicle* written by people in the Western Jin Dynasty that "Seven counties in Wuling Mountain area produce tea of the highest quality". And the *Annals of Tea Industry Trade in Hubei Province* records that tea merchants from Guangdong Province went to Hefeng and Wufeng areas to reform black tea on the eve of The Opium War, which promoted tea production in western Hubei Province. According to *Hefeng State Records* (1867 – 1885), Rongmei tribute tea has been planted everywhere to produce tea of the best quality. There are seven wells at a distance of half a mile. Drawing water from one of them means pumping water from all the other wells. And the water is really cool and sweet. 50 miles from the town there is a fairy tea garden guarded by the hereditary headmen. The tea produced there smells very fresh and fragrant. Drinking the tea boiled with spring water will help to reduce internal heat, clear away the heart fire, eliminate annoyance and solve various kinds of problems."

2.1.2 Historic tea brand. In Ming and Qing Dynasties, Hefeng tea was rated as superior tribute for the imperial palace and was called "tribute tea". In the early time, Rongmei tea had become the precious tribute presented by the hereditary headmen to the emperor. In Hefeng County, there has long been the saying that brewing Rongmei tea with the water from White Crane Well will create the scene as if many white cranes are flying in the cup. Therefore, the moving legend of "Rongmei tea with water from White Crane Well" has been created.

In the year of Jia Yin during the Xianfeng period (1854), Gao Bingsan, a merchant from Guangdong Province went to Hefeng County to reform black tea from green tea. And later in the year of Bing Zi during the Guangxu Period (1876), Lin Zichen and Lu Cilun (brand of Taihehe) went to Hefeng County to reform black tea and ship it to Hankou. The foreigners praised it as superior product. Since then on, green tea has been replaced by black tea. Afterwards, Hefeng County has become the main producing area of "Yihong black tea". The *Records and Maps of Cili County* of Hunan Province has recorded that: "Hefeng, Xijia and Ningzhou produce the best tea of superior quality".

During the Guangxu period of the Qing Dynasty at end of the 19th century, a tea master from America went to visit Hefeng and praised Hefeng black tea as the "top grade". The British have called the "Rongmei tea" of Hefeng County as the "Queen tea".

2.1.3 Ancient tea making techniques. Hefeng green tea and

Hefeng Yihong black tea are made applying ancient techniques, which are important intangible cultural heritage.

2.1.4 Rich tea culture heritage. Hefeng County has rich tea culture heritage including the traditional tea production techniques, tea ceremony with four times of Tujia Nationality and so on. The tea ceremony with four times is the ceremonial culture of demonstrating the tea culture of Tujia Nationality by combining the "Beijinka tea ceremony" in four seasons of the year applied by Tujia people to entertain honored guests in the area of the Rongmei Tusi (now the area of Hefeng County, Xuan'en County and Wufeng County in Hubei Province). The first course is White cane tea; the second course is Soaked rice tea; the third course is Oil-tea soup; and the fourth course is Egg tea.

During the long-term laboring, Tujia people have summarized classical tea proverbs vividly: Spring tea is bitter, second tea is astringent and the third tea tastes good but should not be picked. This proverb has reflected the quality and picking method of tea. There is also another proverb "Morning glow means the good time to boil tea", which reflects the weather change that it is going to rain. And passionate folk songs could not be separated from the word "tea" either: With tea trees planted on the high mountain, you can pick tea and get income from it. The spring tea and second tea picked can be used as the dowry of the youngest daughter. Tujia people are very hospitable, which contributes to the population of the famous folk song: Guests will be entertained with oil-tea camellia in the house, but not corn meal.

2.1.5 Standardized production and green ecological development. Hefeng County promotes standardized production and has built the brand tea production bases with Zhongying and Wuyang townships as the core and the export tea production bases with Zouma Township as the core. The certified plant area of organic tea in the whole county reaches over 13 million square meters. This county has been recognized as one of the "Top Ten Ecological Rea Counties of China in 2012" by China Tea Marketing Association.

2.2 Natural factors of geographical indication The natural factors of geographical indication for Hefeng tea mainly include: Suitable growth area for hygrophilous plants including tea tree; Green ecological environment; Natural selenium-rich agricultural geologic environment; Superior tea varieties; Tea characteristics of selenium enrichment etc.

2.2.1 Suitable growth area for hygrophilous plants including tea tree. Hefeng County locates in the area of subtropical monsoon climate with four distinctive seasons. The average daily temperature is 10 – 15°C with obvious temperature difference between day and night. The annual sunshine duration here is 1 960 hours, and the frost-free season lasts for 249 days. There is little difference in the annual precipitation of different places in the whole county. There is abundant rainfall all year round with the annual precipitation of 1 710 mm. Rainfall is concentrated in April to September, and the amount of precipitation in this period accounts for 90% of the annual precipitation. According to the seasonal distribution, the average rainfall in March to May is 466 mm, accounting for 31%

of the annual precipitation; the average rainfall in June to August is 380mm, accounting for 25% of the annual precipitation; the average rainfall in September to November is 320 mm, accounting for 21% of the annual precipitation; and the average rainfall in December to February is 250 mm, accounting for 16% of the annual precipitation. The relative humidity here is more than 85% all year around. Thus it can be seen this county is a suitable growth area for hygrophilous plants including tea tree.

2.2.2 Green ecological environment. In Hefeng County, there are many soil types, including 7 soil groups (red soil, yellow-brown soil, mountain yellow brown soil, limestone soil, moisture soil, purple soil and paddy soil), 15 subgroups, 44 soil genera, 1469 soil species and 201 soil subspecies. The soil of the whole county is neutral to acidic with a pH value of 4.2 – 6.5. The soil here is fertile with loose soil layer. There are mainly three geomorphic types, namely low mountains, middle mountains and high mountains. The whole terrain consists of flat ground, gentle slopes and abrupt slopes blending with river valleys and flat dams, creating a landform surrounded by high mountains. The county covers a vast geographic area with rivers distributed vertically and horizontally in the entire region. There are 6 major river basins here, namely Loushui River, Xianying River, Linxi River, Wangjia River, Baiquan River and Jiangping River. Densely covered with forests, this area has no large factories and is free from three wastes and air pollution. Besides, there is no history of heavy metal pollution here. Surface water reaches Class II water quality standard specified by the *Surface Water Quality Standard* of China. In Hefeng County, there are beautiful mountains and clear waters. The forest vegetation coverage here reaches up to 82.97%. The tea produced here is of excellent natural quality. In a word, this county has a green ecological environment.

2.2.3 Natural selenium-rich agricultural geologic environment. Enshi Tujia and Miao Autonomous Prefecture has abundant selenium resources, the reserves of which ranks first in the world. Therefore, Enshi is generally recognized as the "world of selenium"^[10]. In Hefeng County, the source rocks of selenium-rich soil mainly include the black rock series of Lower Permian Gufeng Formation (P_1g), Upper Ordovician – Lower Silurian Longmaxi Formation (O_3S_1l), Lower Cambrian Niutitang Formation ($\epsilon 1n$), followed by the coal measure strata of Upper Permian Longtan Formation (P_2l), Lower Permian Liangshan Formation (P_1l), Upper Triassic Jiuligang Formation (T_3j) and Lower Jurassic Tongzhuyuan Formation (J_1t) *etc.* With the actions of weathering, denudation, transportation, sedimentation and pedogenesis *etc.*, these selenium-rich source rocks (black rock series and coal measure strata) has formed a natural selenium-rich agricultural geological environment.

2.2.4 Superior tea varieties. Tea varieties planted mainly include the introduced high-quality tea varieties of national level (Fuding white tea, Longjing 43 and E – cha No. 1) and fine local tea varieties (Enshi Yulu No. 1 and E – cha No. 10). Clonal tea plantation covers nearly 67 million square meters, accounting for

more than 40% of the total area.

2.2.5 Tea characteristics of selenium enrichment *etc.* The characteristics of Hefeng green tea include: small round cord, jade green showing tippy; bright green liquor color, fresh and lasting fragrance, full-bodied taste, neat and well-spaced tea dregs; and natural selenium-rich. Hefeng black tea is featured by small round cord with golden tippy, fresh and mellow taste and bright red liquor color that "creams down" later. Selenium (Se) is the third essential trace element recognized by the World Health Organization (WHO)^[11]. The selenium-rich Hefeng tea is an effective prescription for selenium supplement in preserving good health.

2.3 National geographic indication Currently, there are three major systems for the protection of geographic indication in China: The protection system of geographical indications products of the State Administration for Quality Supervision and Inspection and Quarantine; Trademark registration of geographical indications of the State Administration of Industry and Commerce; Geographical indication registration of the Ministry of Agriculture.

Hefeng tea (green tea) is a national protected geographic indication product, whose scope of protection covers 9 administrative town regions in Hefeng County, namely Baizu Township, Zouma Township, Wuli Township, Yanzi Township, Zhongying Township, Xiaping Township, Wuyang Township, Taiping Township and Rongmei Township. The Tea Industry Association of Hefeng County has registered the trademark "Hefeng Green Tea" as a national geographic indication with the registration code of 9588598. This Association has also registered "Hefeng Tea" (green tea) as a national geographic indication of agricultural product, and the protection scope of this geographic indication also covers the above 9 administrative town regions.

However, there existing the following problems with respect to the protection for geographic indication of Hefeng tea: Hefeng green tea has been registered as different names in the above three protection systems, including "Hefei Green Tea" and "Hefei Tea"; Hefeng black tea (Hefeng Yihong black tea) hasn't been provided with the intellectual property protection of geographical indication; So far, no enterprises have been approved to use the "special mark of national protected geographic indication products" for Hefeng tea (green tea); There are no provincial quality standards nor national quality standards for Hefeng green tea and Hefeng Yihong black tea.

2.4 Famous brand products and top ten famous teas of Hubei Province In Enshi Tujia and Miao Autonomous Prefecture, there are 47 famous brand products of Hubei Province, including the registered trademark "Cuiquan" of Hubei Hefeng Cuiquan Tea Industry Co., Ltd.. Hefeng tea of "Cuiquan Brand" has been rated as one of the "Top Ten Famous Teas of Hubei Province" for four consecutive terms.

2.5 Famous trademark of Hubei Province In Enshi Tujia and Miao Autonomous Prefecture, there are 74 famous trademarks of Hubei Province, including 5 trademarks of Hefeng tea; the trademark "Cuiquan" of Hubei Hefeng Cuiquan Tea Industry

Co., Ltd., the trademark "Hualongcun" of Hubei Hualongcun Tea Co., Ltd., the trademark "Hongluo" of Hubei Hefeng Shiwei Tea Industry Co., Ltd., the trademark "Qilong" of Hubei Hefeng Qilong Tea Industry Co., Ltd. and the trademark "Baiguo" of Hefeng Baiguo Nation Tea Plant.

2.6 Leading tea enterprises In Hefeng County, there is a large amount of tea enterprises of small size, among which the leading enterprises include: Hubei Hefeng Shiwei Tea Industry Co., Ltd., Hubei Hefeng Qilong Tea Industry Co., Ltd., Hefeng Longfu Tea Industry Co., Ltd., Hubei Hefeng Cuiquan Tea Industry Co., Ltd. and Hefeng Baiguo Nation Tea Plant.

3 Geographical indication protection and brand cultivation of Hefeng tea

3.1 Collect and organize the humanity factors for geographical indication of Hefeng tea Humanity and natural factors are principal factors of geographical indication and also constitute the important basis for the application of geographical indication. Collect and organize the production techniques, processes, recipes, production history, tangible cultural heritage^[12], intangible cultural heritage^[13], traditional knowledge and enterprise culture *etc.* of Hefeng tea so as to reveal the humanity factors for the geographical indication of Hefeng green tea and Hefeng Yihong black tea systematically.

3.2 Study the natural factors for geographical indication of Hefeng tea Natural factors of geographical indication refer to the climate, soil, water quality, natural species, agro-geological background and so on of the place of origin. Therefore, the natural factors for the geographical indication of Hefeng tea should be further enhanced. Particularly, the plant genetic resources, agro-geological environment, selenium-rich features and natural heritage *etc.* should be studied to reveal the natural factors for the geographical indication of Hefeng green tea and Hefeng Yihong black tea comprehensively.

3.3 Perfect the protection for geographical indication of Hefeng tea Unify the name of Hefeng green tea as the national geographical indication, apply for geographical indication protection for Hefeng Yihong black tea (providing protection for national geographic indication products, registering trademarks of geographical indications and registering national geographical indications for agricultural products), establish a strict quality management system, develop national quality standards for Hefeng green tea and Hefeng Yihong black tea, and perfect the intellectual property protection system for geographical indications of Hefeng tea.

3.4 Inherit the cultural heritage of Hefeng tea Collect and organize the regional chronicles, traditional tea knowledge, tea culture of Tujia Nationality, traditional tea making techniques of Hefeng green tea and Hefeng Yihong black tea, ancient tea sets and so on; declare the folk customs and traditional skills as intangible cultural heritage of provincial and national levels; hold the tea festival yearly; and carry forward and develop the cultural heritage of Hefeng tea.

3.5 Protect the genetic resources of Hefeng Taizi tea series

Genetic resources are important strategic supplies for a country, and are basic resources vital to national well-being. The generation of tea genetic resources is a long-term process, which cannot be finished in one day. The conservation of such resources needs not only the cultivation and protection of existing holders, but also the efforts of generations, dozens of generations, hundreds of generations or even a longer period of time. Hefeng Taizi tea series are important tea genetic resources that should be carefully preserved.

3.6 Investigate the natural selenium-rich eco-agricultural environment Located in Enshi Tujia and Miao Autonomous Prefecture known as the "world of selenium", Hefeng County is the optimal origin of natural selenium-rich tea. Therefore, we need to conduct a large scale survey (1:10000 or 1:50000) on the agro-ecological geology of the main tea regions in the county so as to evaluate the agro-ecological geologic conditions of the regions and reveal the best ecological and geological environment of various kinds of famous teas, especially the natural factors of geographical indication such as selenium enrichment.

3.7 Build two regional public brands of "Hefeng Green Tea" and "Hefeng Yihong Black Tea" The essential features for intellectual properties of geographical indication include: regionalism; group nature; product uniqueness. Therefore, the protection for the intellectual properties of geographical indication with regard to Hefeng green tea and Hefeng Yihong black tea should be strengthened. Besides, make full use of the brand effect of geographical indication, encourage more enterprises in the scope of geographical indication protection to use the corresponding geographical indications as their special marks, integrate the existing brands according to the unified quality standard, solve the existing problems of "mass, chaos, messy, weak, small and scattered", and build the regional public brands of "Hefeng Green Tea" and "Hefeng Yihong Black Tea".

3.8 Identify "China Time-honored Brand" among the old tea enterprises China Time-honored Brand refers to the brand with a long history, excellent product, techniques or services passed from generation to generation, distinctive Chinese traditional culture background, profound cultural foundation, extensive social identification and well-deserved reputation^[14]. As a result, the historical research should be strengthened for the leading enterprises including Hubei Hefeng Shiwei Tea Industry Co., Ltd., Hubei Hefeng Qilong Tea Industry Co., Ltd., Hefeng Longfu Tea Industry Co., Ltd., Hubei Hefeng Cuiquan Tea Industry Co., Ltd. and Hefeng Baiguo Nation Tea Plant so as to recognize the "China Time-honored Brand" among the old tea enterprises.

3.9 Identify the "China Famous Trademark" of "Hefeng Green Tea" and "Hefeng Yihong Black Tea" China Famous Trademark refers to the trademark identified by competent authorities (Trademark Office of SAIC, Trademark Review and Adjudication Board or the People's Court) as "famous trademark"^[2].

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Therefore, the trademark registration and publicity of national geographic indications for "Hefeng Green Tea" and "Hefeng Yihong Black Tea" should be promoted so as to build them as the regional public brands of agricultural products in China and recognize them as "China Famous Trademark".

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