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LET CHINA OPEN THE NEW LIFE ACTIVITY OF PEAT INDUSTRY

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Peat, which is given by God to human beings as the natural substrate for the activity of opening the new life, is clean, safe and reliable. And, it is the cradle of nurturing —“aw life (wise heart) agriculture”. Learning from Europe and initiating the new life activity of peat industry will have a brilliant future. In 2014, the peat product sales in China is 5 million m³, the market demand is 23 million m³, the expected market demand is 250 million m³, and fifth year new industries set up is worth of 230 billion Yuan RMB. Base on the current tendency, the development prospect could be seen very well. Basically, we carry forward the new life activity of peat industry, start from the resource allocation involving the "domestic and international" scope, strengthen the deep cooperation of the global peat industry, provide "green product and health services", bring up a glorious future of "peat (substrate reconstruction) → infant care home (pure land and industry) → health products (soul reconstruction) → happy life (the essence of people's livelihood)". In conclusion, the concept of —peat+” is to be built and will accelerate the new rural production pattern of —precision of micro domain agriculture + organic ecological agriculture + customer-friendly health industry”. This will not only benefit China, but also benefit the world.

Keywords: *China, peat, industry, new life, activity*

BACKGROUND

China is a big agricultural country, and the majority is about 800 million farmers. Solving the problem of agriculture, country and farmer correctly is a great business to realize national well-off and build of a harmonious society ^[1]. To carry out the new life activity of peat industry is mainly geared by the needs of agriculture, introduction and digestion the advanced experience from European countries, combining with the development level of agriculture in China. It is of great practical significance to promote the new life activity of peat industry in China. Based on the "one belt, one road" national strategy ^[2], it will have extremely far-reaching influence on sharing the experience of happy life led by peat health industry with other developing countries.

THE CONNOTATION OF THE NEW LIFE ACTIVITY

At present, agriculture in China is facing five major problems: (1) the area of arable land will only tend to reduce but not increase. (2) the population will only increase but not reduce; (3) people's requirements on the quality of agricultural products is only with the tendency of improve, but not drop; (4) tackling climate change, the development of low carbon agriculture will only be enlarged, but not shrinking; (5) carry out the ecological environment construction, biodiversity can only be strengthened, but not weakening. In this regard, China promotes the new life activity of peat industry, in accordance with the climate change and the climate & smart agriculture. A fresh human-centered life style is able to develop generally by improving the quality of crops and stimulating the public demand. The application of —Peat+” is capable of adjusting the relationship between new agricultural productivity and ecology. Comprehensively creating the new pastoral production mode of "regulated soil remediation + precision of micro domain agriculture + organic ecological agriculture + friendly health industry + open new resources" will gain fruitful achievements.

CHINA PEAT MARKET SPACE CAPACITY

Regarding to the whole world, the annual exploitation quantity of peat is about 64 million cubic meters. Among of which, 50 % is applied in agriculture. Comparatively, the annual exploitation quantity of peat in China is about 1.5 million cubic meters. Among of which, 90% is applied in agriculture, mainly involving the areas of peat resource utilization, professional matrix, peat fertilizer, soil remediation, and water pollution control et al. At present, the total value of out-put in five years of the five largest markets associated with promotion of new life

activity in peat industry in China is expected to be 230 billion yuan.

The Comprehensive Utilization of Peat Resources

Aiming to promote the new life activity of peat industry in China, firstly it should meet the needs of peat products. Current peat resources is about 12.4 billion cubic meters in China, only less than 8% of which can be put in use^[3]. In addition, the peat is mainly meadow peat with large decompose degree, low fiber content, and worse structure, which cannot reach up with the requirement of "quantity and quality" in the market of China. According to the statistics, the sales volume of peat products in China in 2014 was about 5 million cubic meters. Among of which, the imported peat resources was about 1 million cubic meters, which was far from the market demand of peat products. It is estimated that in the next 5 years, the imported peat resources in China is to be 15 million cubic meters. Assuming 350 yuan for 1 cubic meter, then the entire market is worth 5.3 billion yuan. Therefore, the Chinese market is huge for both domestic protection development and global resources utilization.

Personalized Professional Substrate

In recent years, the agriculture in China has presented a new pattern of diversified development. In addition to the traditional agriculture, facility agriculture, landscape agriculture, home furnishing agriculture become more and more popular. The demand of the substrate is growing, such as the plant nursery, horticulture cultivation and individual cultivation. It is estimated that the nursery substrate annually will attain to 50 million cubic meters for industrial crops including vegetables, flowers, fruits, cotton, rice, tobacco and sugar beet et al. At present, the amount of the peat substrate utilization is nearly 5 million cubic meters. Assuming 300 yuan for 1 cubic meter, the market is about 13.5 billion yuan. In addition, the areas of vertical greening, planting balcony, roof planting will increase the peat substrate demand.

Soil Remediation and Production

The quality of cultivated soil in China is generally low. 70% of the soil has problems^[4], and about 26 million hectares of cultivated soil owns different level pollution. Among of which, more than 3.3 million hectares of cultivated soil suffers moderate or severe heavy metal pollution. On condition that 1% of the soil utilizes peat for repairing or reconstruction, assuming 1 hectare with 60 cubic meters of peat soil and consume 500 yuan, accordingly the market is up to 7.8 billion yuan. Even though, it does not include the transformation of saline alkali land, desertification control, hilly land utilization and mine reclamation et al. At present, the soil remediation of peat conditioner in China is mainly applied in the cultivation protection of the sunlight greenhouse, plastic greenhouse, and plastic film mulching. It is expected that, in the next 5 years, the protected area will reach up to 1 million hectares. Assuming soil with 1 hectare is with 0.4 cubic meters of peat soil, and consumes 500 yuan, and only the market of soil remediation is able to reach up to 200 million yuan.

Environment Friendly Peat Fertilizer

Fertilizer is dominating in agriculture in China. Over 50 years of practice has proved that the humic acid fertilizer contributes to the soil safety, fertilizer quality and efficiency, crop nutrition and health as well as the friendly environment. Recently, the Chinese government pushes constructing of ecological civilization significantly. Ministry of agriculture and the Ministry of industry and information introduced "Fertilizer zero growth action plan"^[5] and "Fertilizer industry transformation guidance"^[6], respectively, so that the demand of humic acid fertilizer can grow rapidly, whose origin is identical to soil. Peat, as an important raw material source of extracting humic acid, exhibits versatile and personalized, including peat humic acid based fertilizer, foliar fertilizer, water solution fertilizer, and organic fertilizer and water conservation fertilizer. Assuming in next 5 years, the demand of peat humic acid fertilizer will exceed 5 million tons, and the output value will attain to 13 billion yuan (Calculated according to 2600 yuan / ton).

Amount of Water Pollution Control

China is a country short of water resources. The per capita water resources are only 2300 cubic meters, accounting for 25 % of the world average level^[7]. At the same time, China is also one of the countries with the most serious water pollution. The seven river systems of Liaohe, Haihe River, Huaihe River, Yellow River, Songhua River and the Yangtze River are all suffering different degrees of pollution. Lake (reservoir) rich nutritional problems are still prominent. Moreover, the pollution sources along the coast are increasing^[8]. Hence, treatment of water pollution is urgent. Environmental scientists has pointed out that the aquatic humic substances is "scavenger", just as the water "white cells"^[9]. Industrial extraction of humic acid, including peat, can be used to regulate water quality, water purification, and optimization of aquatic organisms, sewage pollution reduction and development of the aquatic health breeding. Its application areas and the market development space are huge. Taking the sewage treatment as an example, the total amount of wastewater discharge in 2014 was 71.62 billion tons, accounting for 1/6 of the total amount of the wastewater discharge in the whole world^[10]. Among of which, 0.3 % has used humic acid product for water pollution control, and the output value was about 200 billion yuan (about 10 thousand yuan

for 1 ton).

THE INNOVATION MODE OF NEW LIFE AGRICULTURAL

As early as nineteenth Century, Holland has introduced peat into the field of horticultural crop breeding and cultivation. In early twentieth Century, the peat industry in Europe developed rapidly, especially agriculture^[11]. China has been concentrated in the peat study for 58 years^[12], and is still behind the European countries for production and application. Therefore, combing the conditions in China and learning from Europe will obtain fruitful achievement for conducting the new life activity of peat substrate in China.

Precision of Micro Domain Agriculture

Micro domain agriculture is mainly focused on the characteristics of significant differences of agriculture production conditions existing among the geographical location, climate, topography, soil and water in China, including scale and non-scale. Scale refers to the intensive production type of micro domain, including land for growing field crops, factory-like seedling nursery et al. Non-scale focuses on the irregular, asymmetric production region of micro domain, including gardens, roofs, balconies et al. The so-called precision, speaking of the scale cultivation, means to provide the specific cultivation substrate and professional products according to different regions, different crops, different varieties and different consumer groups together with habits. In terms of the individual production, combining "substrate, nutrition, regulating acid, controlling disease and container..." into one subject, peat, one-to-one, point-to-point, to provide a fine and delicate cultivation substrate and professional products, can be accurate to a basin, a tree seedlings, a gram of soil. It is true that a unique precision production in micro agriculture will bloom together in China.

Adjustable Soil Remediation

With more attention being paid to the issue of soil, the market of soil remediation is keeping expanding. In recent years, the Chinese government continued to carry out projects of "soil remediation, improving organic matter, protection and utilization of black land, management of heavy metal land, desert governance, transformation of saline and alkaline land, transformation of low yield farmland, fertile soil engineering, soil testing and formulated fertilization, drought resistant water-saving, fertilizer integration". New technology, new products and new methodology are more and more important. The three significant characteristics of "water retention, fertilizer and breathable conditioning" of peat soil conditioner play major role in remediation of contaminated soil, improving organic matter, desertification, salinization controlling, transformation of low yielding fields et al. Especially in the dry farming, water-saving agriculture, plateau agricultural engineering. Accordingly, facing the problem of soil, developing multiple management products for peat soil, and solving the current problems of widespread soil treatment problem in China are particularly important.

Organic Ecological Agriculture

Now Chinese market is advertising organic agriculture, however, all the 1800 million acres of arable land need fertilizer. In this sense, Chinese agriculture cannot realize the real organic agriculture. Assuming organic ecological agriculture in China, should follow the law of the negation of negation, namely mainly reconstruction of the regional ecological environment. And producing the ecological environment friendly peat agricultural products can solve the issue of mass production organic food with large amount. It must be stressed that the organic matter from the industrial and agricultural by-product might be unsafe, but the organic matter in peat humic acid must be safe^[13]. Uniting the peat humic acid and fertilizer into "marriage", the safety inorganic nutrients will be brought into the soil. And the production mode of multi-direction of "soil resources and fertilizer efficiency and crop output and environmental benefits" can be built, which further to achieve comprehensive effect of "moderate investment, high yield, no pollution and good quality", to achieve the organic agricultural production thoroughfare.

Man-Of-The-People Style New Rural

Is it the "garden of Eden"? Just build it! Peat is a natural fine substrate, clean, safe and reliable. Let peat own the features of professional, low carbon, high quality, warm and sweet, beauty. Build the new rural life activity of "infant care home" is urgent. Because of professional, it can create characteristic agriculture, recycling agriculture, stereo agriculture, puzzle agriculture, agricultural landscape; because of low carbon, it can create ecological agriculture, organic agriculture, alternative agriculture, seasonal agriculture, recycling agriculture; because of high quality, it can create a ratio agriculture, personality agricultural, clean agriculture, moral agricultural and self-entertainment agriculture; because of the warm and sweet, it can create a passion agriculture, elderly people agriculture, health agriculture, leisure agriculture, festival agricultural; because of beauty, it can create beautiful agricultural, appearance agriculture, fashion agricultural, decorating agriculture, visual agriculture. All close to the green health of the pastoral life, what an attitude of cherishing people!

Open up New Resources Uncultivated Land

At present, the Chinese people's life has presented a new ordinary state: people's demand for the quality of agricultural products is more and more high. The current situation of China's cultivated land (less area, heavy pollution, low quality) has been unable to meet the needs of the people's high quality of life. However, China has an area of about 1 million square kilometers of sandy land, 33.4 square kilometers of desertification land and shifting of sand dunes, 100 square kilometers of the hills, and rich mining resources, the Gobi desert. Promoting the new activity of the peat industry and developing the new resources is undoubtedly a more direct and more rapid beneficial supplement to the cultivated land resources. Furthermore, there are three advantages: one is the resource does not exist the issue of scrambling land with civilian, so that large area of unified development can be realized; the second is the large area of new resources, abundant types and significant differences, so that depth development can be applied to create a distinctive new cultivated land, benefiting diversified agricultural production needs; the third is new resources are unexplored, so that it is able to monolithic integration by one time, and reconstruction of the regional ecological environment, to achieve accurate, ecological, organic and efficient in whole. These new resources will become the uncultivated land of constructing the new life activity of peat industry truly.

CONCLUSION

We believe that promoting the new life activity of peat industry will create a civilized business, and in turn will create a harmonious life. In the next 5 years, promoting the new life activity of the peat industry, adjusting the regional agricultural productivity the ecological relationships, creating "the garden of Eden" of precision agriculture of micro domain + organic ecological agriculture + friendly health industry" will become a magnificent picture of new rural production in Chinas. To be concluded, promoting the new life activity of peat industry in China will not only benefit the China, but also benefit the whole world.

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