

# Exclusive Conversation with Special Guest: Academician Sun Cheng, the "Father of Chinese Fertilizer"

This issue's special interview / Liu Zhening

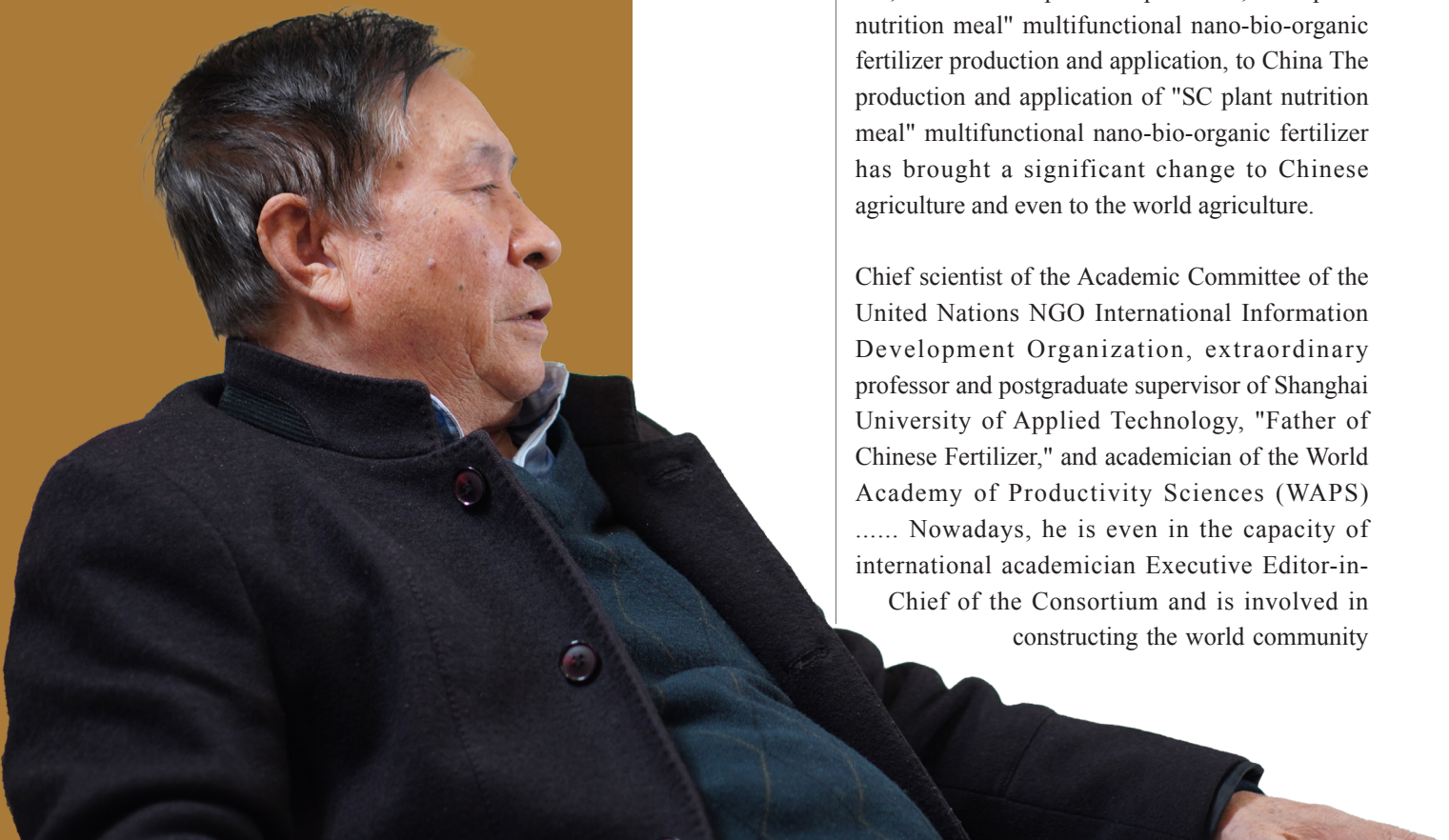
## Sun Cheng

member of the Chinese Communist Party, academician of World Productivity Sciencewan, famous scientist, one hundred excellent inventors in the 60th anniversary of the founding of the People's Republic of China, executive chairman.....

He took it lightly in the face of the ups and downs of fame and fortune. He not only made outstanding contributions to the progress of humanity in the field of science with his rigorous and diligent scientific attitude but also interpreted the noble personality of a scientist with his indifference to fame and fortune and his frank attitude to life.

At the same time, he is committed to the landing of scientific research results; in all parts of the country, ten thousand mu of good fields bear fruit - Yuan Longping breakthrough 900 kg per mu, with the help of his products; "SC plant nutrition meal" multifunctional nano-bio-organic fertilizer production and application, to China The production and application of "SC plant nutrition meal" multifunctional nano-bio-organic fertilizer has brought a significant change to Chinese agriculture and even to the world agriculture.

Chief scientist of the Academic Committee of the United Nations NGO International Information Development Organization, extraordinary professor and postgraduate supervisor of Shanghai University of Applied Technology, "Father of Chinese Fertilizer," and academician of the World Academy of Productivity Sciences (WAPS) ..... Nowadays, he is even in the capacity of international academician Executive Editor-in-Chief of the Consortium and is involved in constructing the world community



of destiny.

He came from the farmers and went to the farmers his whole life. Today we have the honor to invite Academician Sun Cheng for an interview and ask him to introduce us to the stormy journey behind his brilliant scientific achievements and his outlook on the future of the journal of the International Association of Academicians. In the article, we also asked Academician Sun Cheng for his opinion about the recent hit series "Three Bodies" and the famous book "Silent Spring" mentioned therein!

**Journalist:**

*Hello, President Sun. I am the International Consortium of Academicians scientific correspondent: Che-Ning Liu. It is a special honor to invite you for this interview today. You have numerous honors, being selected as one of the 100 outstanding inventors on the 60th anniversary of the founding of the People's Republic of China in 2009, being listed as one of the 39 scientists in the stamp collection for the 70th anniversary of the founding of the Chinese Academy of Sciences in 2019, and being the father of fertilizer in China. Among all these honors, which one interests you most?*

**Sun Cheng:**

I am most proud of the small contribution I have made to fertilizer in conjunction with my profession.

**Journalist:**

*You have been a very low-profile academician before, and the Journal of Academician Consortium is exactly our medium for external publicity. How do you plan your philosophy and goals after creating the journal?*

**Sun Cheng:** We, as the International Academician Consortium founded on December 16, 2018, he is a science and technology innovation platform in itself, but also a natural

and open sharing platform for science and technology innovation. Also, therefore we want to build a world talent center and create an innovation highland. Such a large platform should have its journal should have its publication. This magazine should reflect the business dynamics of our international academician consortium, the cooperation with local governments and enterprises in science and technology, including the transformation and promotion of some domestic and foreign academician experts. We also want to expand the influence of society so

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that we can understand more about the platform.

**Journalist:**

*Understand, then, the establishment of this platform, but also hope to further international convergence.*

**Sun Cheng:**

It is called the international academician consortium. There are many international academicians in the organization and many members of the two academies.

**Journalist:**

*So, what would we achieve at this stage?*

**Sun Cheng:**

We are now mainly cooperating with various domestic and foreign universities. Another one is to establish cooperation with scientific research

2018

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institutions. Include the talents of domestic and foreign universities and research institutions to form our World Talent Center. As a network of senior talents, we can absorb their achievements into our achievement database and transform them into the ground. In the past four years since its establishment, we have more than 500 academicians, including more than 200 domestic and nearly 300 international academicians. In addition, we have more than 13,000 researchers and professors. As members of our senior talent network, we have absorbed these academicians and experts, most of whom have achievements that can transform the ground. Build the international academician consortium of talent network members through such a system of academicians.

As the chairman of our international academician consortium, it is also fruitful. The reporter asked Sun Cheng academician in Wuji County and Yiwu to do the pilot, as well as the Pure Land Guardian project, whether you are willing to share more with the reader to share.

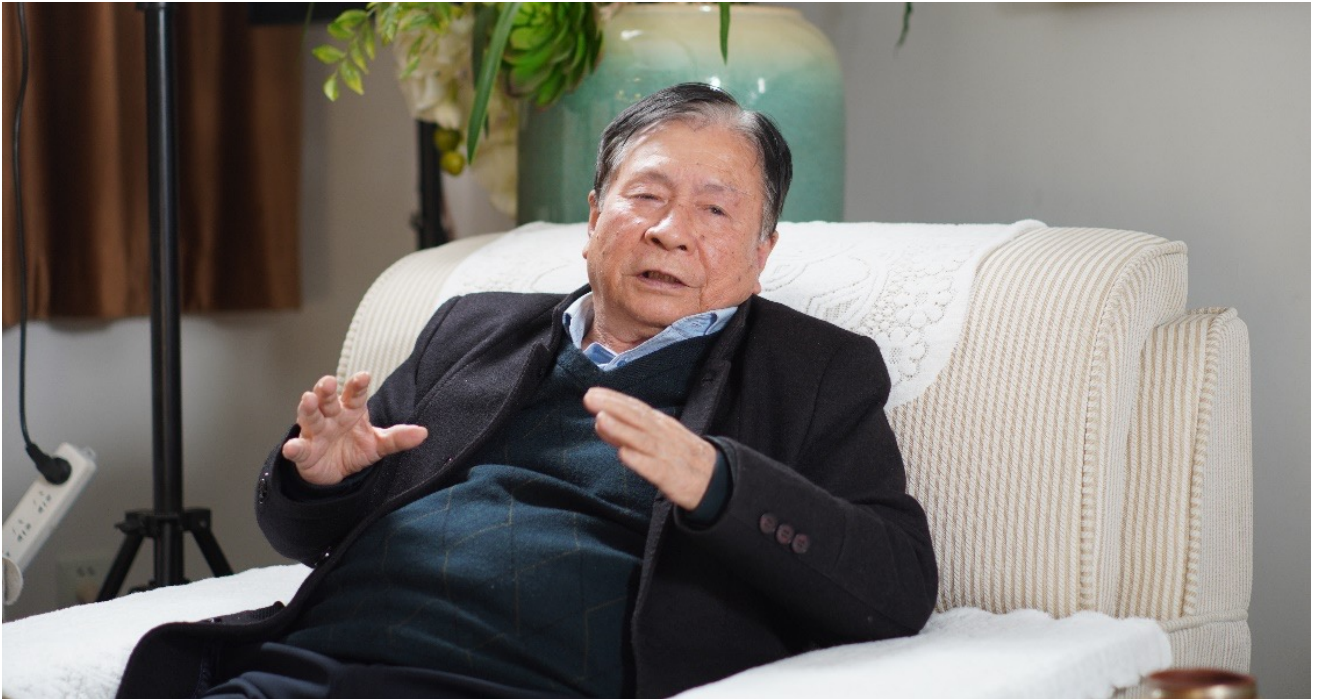
### **Sun Cheng:**

Wuji County model is like this: in order to practice President Xi Jinping's "green water and green mountains is the golden mountain silver mountain" "two mountains" theory, to fight a good clean soil defense war, consolidate the great achievements of the blue sky and green water defense war, to promote agricultural and rural emission reduction and carbon sequestration to achieve carbon peak carbon neutral "In October 2021, the Party Committee and the People's Government of Wuji County, Shijiazhuang City,

Hebei Province, launched the "Three-Year Action Plan to Replace Chemical Fertilizers with Organic Fertilizers" to build the country's first "Agriculture Carbon Neutral Demonstration County" and "Chemical Fertilizer Free Demonstration County", and innovate the "Green Low Carbon Circular Development Economic System" ---- - "Wuji Model" to explore a feasible model for the The "Wuji Model" is an innovative "Green Low Carbon Circular Development Economic System" to explore a feasible path for the national agriculture carbon neutral. Last year, the People's Government of Wuji County and our international academician consortium established a partnership. It introduced the academician team and established the academician science and innovation service station in Wuji County. I will lead the construction of the service station. We have five academicians and ten experts to provide technical support services for the local economic and social development of Wuji County.

After the establishment of the Academician Workstation, we mainly created a strategic and major project to build the first agricultural carbon-neutral demonstration county and chemical fertilizer-free demonstration county. We have been practicing in Wuji County for more than a year. In addition to Wuji, we selected 11 bases in six provinces and cities across China. Because the main crop varieties in Wuji County are corn and wheat, it does not have rice, so there is a variety of these varieties we are in Wuji County outside the implementation.

### **Journalist:**



*The concept of "plant-based nutrition" was also proposed at that time, right?*

**Sun Cheng:**

Yes. This plant nutrition meal is also called multifunctional nano-bio-organic fertilizer, using technology to replace chemical fertilizers. After this, the chemical fertilizer-free demonstration counties have achieved remarkable results. All 11 sites have generally been successful from the results. Yields have increased by more than 20% compared with chemical fertilizers and compound fertilizers. In addition, we have also reduced the use of pesticides significantly, and there are no pests and diseases.

**Journalist:**

*This pilot is very successful. Now there are already more rural counties and towns that need to be promoted, right?*

**Sun Cheng:**

Yes, now there are a lot of city and county leaders

taking the initiative to find our international academician consortium; they also hope to promote the green development of agriculture like Wuji County, so also to introduce this technology.

**Journalist:**

*To achieve the vision of our international academician consortium of clean soil guardians, this should be a protracted battle.*

**Sun Cheng:**

It is because I myself, in my life, have been working on the project for these decades. When I was young because I was born into a farmer's family, I also farmed and sowed pigs and cows when I was small, so I still have a great affection for farmers. I was born in the old society, but I grew up under the Red Flag and under the cultivation of the Party and the illumination of Mao Zedong Thought. When I was young, I saw the backwardness of the countryside, and the living standard of the peasants at that time was also very hard and difficult, so I made up my mind to "live for the peasants and die for the peasants."



**Journalist:**

*Through the conversation with you, we learned that the resources or the environment in your era were relatively tough. In such an environment, there must have been an extraordinarily strong will to support your advancement.*

**Sun Cheng:**

When I say it, I still have this kind of feeling, that is, a deep feeling for farmers, and I also rely on it to support myself, so I can not be afraid of hardship and fatigue. Like I was working on experiments every day, sometimes I did not go home for a month or two. In 1999, I went to Edinburgh, England, to attend the 11th World Congress of Productivity Science. At this conference, I presented a paper on fertilizer, which changed the dominant position of agricultural chemistry. At the conference, I was elected as a member of the World Academy of Productivity Sciences. Nowadays, the results of our scientific research will penetrate not only agricultural products but also, I should say: the most fundamental source of human health, animal

health, and plant health comes from the soil.

**Journalist:**

*Understood, the study of land and agriculture is perhaps destined to the silent dedication, but in fact, it is the basis of the entire healthy ecology.*

**Sun Cheng:**

Yes, but in fact, the country also attaches great importance. In 1840, the German chemist Li Bisch invented chemical fertilizer, which changed the traditional fertilizer the past. With chemical fertilizers, the yield of crops changed qualitatively, and it was a significant advancement in agriculture. Our country's agriculture has also enjoyed a great harvest, with consecutive and record-high harvests for more than a decade, solving our growing food capital problem. The merits of chemical fertilizers are indelible.

**Journalist:**

*Speaking of which, I can't help but ask you if you have read "Three Bodies," a novel that has been hotly debated recently. The author also mentions the novel "Silent Spring," which discusses the*

926.6

the average mu yield reached 926.6 kg, helping Yuan Longping break the 900kg mark for the first time.



*relationship between agricultural chemicals and the environment.*

**Sun Cheng:**

The Three Bodies is an excellent science fiction novel, and I have read the Silent Spring book you mentioned. Many thoughts and ideas in this book coincide with the goals we are pursuing now. Pesticides and fertilizers are widely used in agricultural production. Still, because we have not been able to use them scientifically and rationally over the years, they have brought about many adverse effects while increasing yields.

To solve this problem, our scientific research team launched the brand "Four Seasons King Bio-Organic Fertilizer" in 2000, a multi-functional nano-bio-organic fertilizer based on the theory of ecological agriculture and the "theory of plant nutrient growth and reproductive growth." Based on the "theory of plant nutrient growth and reproductive growth," the fertilizer type organic solid waste such as charcoal, wine lees, lignite, straw, livestock manure, sludge, household waste, agricultural by-products scraps, etc., are used as the primary (carrier) raw materials, with the addition of essential plant nutrients, nano-carbon organic catalytic materials, nano-release functional materials, aerospace microbial bacterium, native natural humic acid, natural medicinal plant extracts, biodegradable polymer absorbent materials, etc. Biodegradable polymer water-absorbing materials, and other high-tech materials, based on the scientific principle of balanced plant nutrient growth and reproductive growth formula, made by a specific production process of "SC plant nutrition meal" material new materials Century Field King multi-functional nano-bio-organic fertilizer.

And in 2006, the Ministry of Science and Technology, the country, specifically published a book, the results of my technology, which compiled a book about four seasons of Tian

Wang's new slow-release fertilizer technology and applications as the national Starfire program training general book.

**Journalist:**

*In practical application, can this invention match or even surpass traditional chemical fertilizers?*

**Sun Cheng:**

Yuan Longping academician, in the fourth phase of the 900 kg super hybrid rice PR test, for six consecutive years, has yet to overcome the difficulties. 2011 application of Century Field King Enterprise Alliance producer Anhui Liuan Yiniu Biotechnology Company produced bio-

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organic inorganic compound fertilizer for the test. On September 18, 2011, China's State Ministry of Agriculture experts organized on-site yield testing and acceptance, the average mu yield reached 926.6 kg, helping Yuan Longping break the 900kg mark for the first time. Yuan Longping was so happy that he took the lead in establishing an academician workstation for Liu'an Yiniu Biological Company; he inscribed the product "Crop's Food, Yiniu Fertilizer" and also listed Yiniu as the designated manufacturer of "Yuan's Super Rice" fertilizer. Ltd. and Hubei Fengyi

## Academician Profiles

Fertilizer Co., Ltd. of the Century Field King Enterprise Alliance, as the special fertilizer for Yuan's super rice.

In 2008, Sun Zusheng, a national model worker and grain grower, secretary of the excellent village party branch in Dazhou Village, Xinjian County, Jiangxi Province, planted 5,000 mu of early rice in his own family and applied "Century Field King" brand bio-organic fertilizer produced by Jiangxi Qijia Fertilizer Co. 1200 pounds, creating the highest mu yield record in the history of early rice in southern China, the past with other well-known brands of fertilizers, mu yield up to 800 pounds.

**Journalist:**

*Now, high-tech fertilizer has a lot of benefits. He*

*is now put into large-scale production; will there be any difficulties?*

**Sun Cheng:**

Sh this difficulty is now sure to have a new thing for the community; farmers also have to have a process of understanding because if they see what is genuine, right to see the actual effect, they can not see the actual effect. They may still not believe it. So we are in all parts of the first demonstration. We are now demonstrating a relatively large area. Some are tens of thousands of mu, like fruit and vegetables; some are thousands of mu, and rice is also a few thousand mu.

**Journalist:**

*You were born in 1945 and are now almost 80,*



Members of the journal with Academician Sun Cheng (from left: Wang Guiqing, a member of the Executive Committee of the International Association of Academicians, Sun Cheng, Executive Editor of the International Association of Academicians, Liu Zhening, Special Correspondent, and Yang Zhuofan, Editor-in-Charge of the Newsletter of the International Association of Academicians)

Alliance producer Anhui Liuan Yiniu Biotechnology Company produced bio-organic inorganic compound fertilizer for the test. On September 18, 2011, China's State Ministry of Agriculture experts organized on-site yield testing and acceptance, the average

*so you are an excellent example for us. You are a good role model for us. You continue to carry on the road of scientific research and encourage us to go forward as a team of young and middle-aged people. Finally, do you have any special message for our descendants?*

**Sun Cheng:**

I hope that young scientists and technicians will take over our current work. Our original intention of establishing the international consortium of academicians is to serve the building of a community of human destiny. Because to promote such a great goal as the people's community, more is needed to rely on our Chinese talents alone. It needs to be more. We hope to absorb the high-end domestic and international talents, especially the top academicians and experts, to tap and transform their achievements into the ground.

**Journalist:**

*Thank you, Chairman Sun, for sharing today, which indeed shows us a higher place, a bigger vision, and the direction of our future fertilizer industry, as well as the direction and original intention of the development of our entire international academician consortium, and the future career that it can achieve. Thank you very much, Chairman Sun, for taking time out of your busy schedule to be interviewed today.*

**Personal Introduction**



*Sun Cheng, male, born in February, 1947, member of the Chinese Communist Party, academician of World Productivity Sciencewan, famous scientist, one hundred excellent inventors in the 60th anniversary of the founding of the People's Republic of China, executive chairman, and secretary-general of World Productivity Sciencewan China, vice chairman of China Media Association, vice chairman of China Poetry and Wine Culture Association, R&D center of World Productivity Sciencewan Beijing Chief Engineer, President of Century Tian Wang Enterprise Union.*

*He has made significant contributions to the development of China's economy by transforming many of his significant scientific and technological achievements into productivity, and 1991 he introduced the "drip plastic production technology," which has established 18 production lines in China and made significant contributions to the development of China's textile industry. He has made important contributions to the development of China's textile industry. The new slow-release fertilizer "Century Field King", which he successfully developed in response to the low utilization rate of chemical fertilizers, soil caking and environmental pollution in China, has filled the historical gap of organic and inorganic slow-release compound fertilizers in China and the world. It marks that China's fertilizer technology has reached the leading international level. It can improve the land yield. The rate of utilization of resources. It is of great significance to improve the productivity of agricultural labor.*