國立中興大學 National Chung Hsing University & NSP J&A Tech 多鏈科技

NSP for Life !

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NSP Friendly "Physical Mechanism" for Disease-Control and Growth-Promotion in Organic Farming Agriculture

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NSP contributing agriculture in Food Safety and Food Security

NSP "Zero-Pesticide" New Agriculture

For

Food Safety and Food Security

1. Reducing the uses of chemical fertilizers (organic farming)
2. Promoting the growth of crops and increasing harvest yields
3. Increasing CO2 storage in soils

3/21/2019 Press Release of National Chung-Hsin University

The NSP Technology

In agriculture, substituting pesticides, promoting plant growth and crop harvest yield, reducing fertilizer

In livestock, avoiding antibiotics/ chemical drugs and new way of preventing bird-flu pandemics

NSP for organic farming and helping food safety and food security

「天然矽片」無毒抗菌 為農畜漁業帶來新契機_新唐人亞太電視台

The NSP "Zero-pesticide" Agriculture

The NSP technology has been applied for growing rice, vegetables and animal feeds, and water-treatment. In the years of 2010 to 2015, the NSP has been further modified by surfactants the uses of absorbing organic toxics in water, **physically removing bacteria, and controlling fungal or viral infections.** For the agricultural uses, a large-scale pilot test of field trial over 200 acres of rice growth has been accomplished in Taiwan since **2014**. The rice fields were treated with NSP without using any conventional pesticides. In these field tests, the harvest of rice grain was surprisingly recorded to **have a bonus of 20% yield increase**. The NSP technology of "zero-pesticide" cultivation or totally-free of chemicals in fields.





Other crops include potatoes, corn, tomatoes, tobacco, strawberries, Chinese herbs and tea trees. Further, the NSP in water was successfully applied for growing animal livestock of chickens and pigs without using any antibiotics or **"zero-antibiotics" for treating bird-flu virus infection**. The tests of cytotoxicity/genotoxicity toward human cells was proven to be safe and the oral lethal dose (LD50) showing similar to NaCl.

In 2018, NSP has been commercialized in Taiwan, for using in agriculture, livestock, water treatment, and environmental remediation.


NSP in Taiwan
Since 2006
Field Trial

Tomato

Method	Soil pouring, spraying on leaves one time per 20 days ※Seedling was used insecticide by two times, afterwards use NSP without any pesticide.
Result	1. Mature 15 days earlier (standard : 120 days) 2. Larger fruit

Strawberry

Control

Sweetness Degree: 8~10
Loose Fruit Tissue

Sweetness Degree 11,
Insecticide and Fertilizer
(Every 10 days)

Field Test

--100% Zero-Pesticide--

Sweetness Degree 15,
Vibrant Color, Plump,
Zero-Pesticide Residue

Disease Control in Rice Crop in Taiwan (spraying NSP by Drone)

With NSP-applied

Health and less disease

Without NSP

Sheath blight disease
紋枯病嚴重

rice blast disease
穗稻熱病嚴重

International promotion

- Myanmar
- INDIA
- Others

Paddy Filed

Control

Field Test

15 days after spraying NSP

Spinach

Control

Field Test

Green Beans

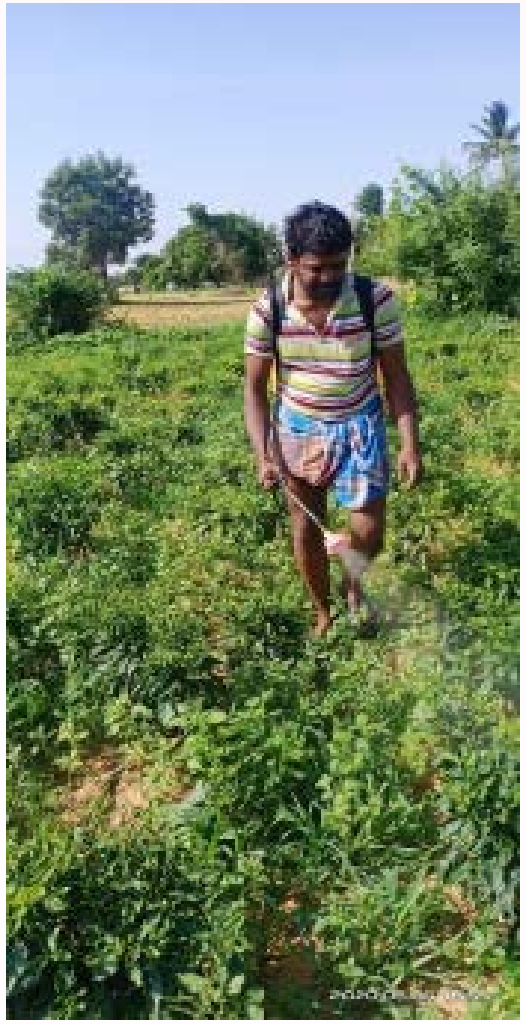
Control

Field Test

Durian crop

Got feedback that the fruit set is better in the plants where NSP is sprayed, when compared to non NSP sprayed plants.

Hot pepper



Before spraying

20 days after spraying NSP

Cabbage Farm – farmers are smiling !

1. NSP for growing cabbages in India – Prof Lin's visited the farmers
2. Astonishing results: (a). shortening the harvest period from 50 days to less than 40 days, and (b). harvest yield increasing from 5-60% of salable products to 8-90% of them, by NSP spraying only twice in each farming cycles, (c.) farmers are all smiling !

2018, In Taiwan, two company's brands of NSP formulation sprays are in the market, experienced for more than 30 different crops, fruits and vegetables, with outstanding results.

液態

利農力 Li-Lon-Li

龍矽寶 Lon-Si-Po

Certified by Agricultural Dept.
植保製字第00125號
植保製字第00153號

Certified for uses in Organic Product Farming-【109026號】- 2020 -【110006號】- 2021

Red pepper

Coffee tree

Strawberry

Rice

Peas

Vegetable

NSP can resolve the world's problem of "food safety"
(pesticide overuse leading to a serious pesticide-Residue in foods)

1. Pesticides: synthetic herbicides, insecticides, fungicides e.g., DDT; Carson's 1962 book "Silent Spring"
2. Alternative: genetically modified plants, biological substances
3. Pesticide residue in foods and soils

Pesticide spraying in USA

NSP can help!

"Food Safety, Food Security and Environmental-Friendly Organic Farming"

Picture from / CC0 Public Domain

2020 EU's "Farm to Fork Strategy", the European Green Deal, focuses on the solutions to Climate Change and Food Security, for a fair, healthy and environmentally-friendly food system.

- ✓ Cutting the use of pesticides on farms by 50%,
- ✓ Reducing antimicrobials used for farmed animals and aquaculture
- ✓ Reducing fertilizer usage by 20%
- ✓ Shifting 25% of its farmland to organic farming
- ✓ Reversing the loss of biodiversity
- ✓ Mitigating the climate change
- ✓ Increasing animal welfare
- ✓ Ensuring food security, nutrition and public health

EU's European Green Deal

「Farm to Fork Strategy」

The Diversity of NSP Applications

"Zero-Pesticide" Agricultures
"Zero-Antibiotics" Livestock and Anti-virus (bird flu)
Soil/Water Environmental Restoration

1. "Zero-Pesticide" Agriculture: Free of chemical pesticides, Organic Toxins, Inorganic Heavy Metals, organic-farming agriculture
2. Soil Restoration (reducing fertilizer uses and improving soil fertility by buffer acidity)
3. Crop Protection from Diseases, Insects, Bacteria, Virus, Fungi, etc.
4. **Plant Growth Promoter (non-chemical method) – improving bioavailability (nutrition uptake from soil), photosynthesis, Si-fertilizer, and water-keeping)**
5. Seed Protection
6. Deodorizing in environment and air pollution
7. "Zero-Antibiotics": Free of Antibiotics/Chemical Drugs in Poultry and Aquaculture/Fish/Shrimp Farming, Gaseous ammonia adsorption in poultry farms
8. Anti-virus (Anti-Bird Flu of chicken farm)

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THANK YOU

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